THE THEORETICAL PRINCIPLES OF LANDSCAPE ARCHITECTURE

AN EXPLORATION OF THE CORE LANDSCAPE THEORIES AND THEIR APPLICATIONS WITH SPECIAL RELEVANCE TO THE CONTEMPORARY LANDSCAPE PROFESSION IN TAIWAN

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ABSTRACT

This thesis presents research concerning the nature and underlying principles of landscape architecture. The whole research study is explorative; it is not about testing a presumed hypothesis, but it is a search for a better understanding of the theoretical groundings of landscape architecture. This thesis reflects the course of this exploration and addresses the outcome drawn from the study.

The research was initiated by the concern arising from the widespread misunderstanding of landscape architecture in a particular country, Taiwan. While landscape architecture is recognised as a modern environmental profession with an Anglo-American history, the concept of this western-imported profession remains obscure to many Taiwanese people. A common question asked is: What is landscape architecture? This question is more profound than it appears, as it challenges the professional identity of landscape architecture. Knowing the shared theoretical stances of the field will help to strengthen the identity and cohesion of landscape architecture. Therefore, this research asks two key questions: What are the shared theoretical principles of landscape architecture? How are these core theoretical principles taken into account in practice, especially when applied in a specific cultural/local context?

Through analysing a set of landscape projects in Taiwan, the universality and applications of the core landscape theories are explored and discussed. A further in-depth case study further explores the subcategories of landscape theories that were emphasised or emerged in the Taiwanese projects to learn more about the landscape practice in Taiwan. This research aims to achieve better understanding about the field of landscape architecture and the Taiwanese landscape practice.

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DECLARATION OF ORIGINALITY

I hereby declare that the research recorded in this thesis and the thesis itself was composed and originated entirely by myself in the School of Landscape Architecture at Edinburgh College of Art (Heriot-Watt University/Edinburgh University).

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1 INTRODUCTION

1.1 General introduction

Landscape architecture has developed from many traditions, such as gardening, horticulture, and architecture and it claimed its independence as a distinct environmental profession from the mid-nineteenth century, when Frederic Law Olmsted coined the term 'landscape architect' to distinguish his career from other related fields. However, 'dispute over the meaning of "landscape" can challenge the identity of both individual professionals, and the profession itself' (Swaffield, 1993: 58). Thus, landscape architecture becomes enigmatic and is often misunderstood. 'What is landscape architecture?' has no easy answer. As a specialised field, landscape architecture should reach a certain consensus with regard to its very nature. However, a brief literature search shows that not only is the work scope of the profession diverse, but the definition of the field is also never fixed. Landscape architecture is facing an identity crisis (Stiles, 1994). The lack of a clear professional profile is a common issue most landscape architects have to face, though it is not necessarily a problem for all of them. Yet, in Taiwan, the widespread misunderstanding of landscape architecture has caused the landscape profession many difficulties in its practice. A quick review of the development of the landscape profession in the country shows that by the experience and achievement of the western landscape profession, landscape schools in Taiwan have developed rapidly and have obtained an independent status as a distinct discipline. However, instead of clarifying the nature of the landscape profession, the use of 'landscape architecture' as the field's nomenclature has caused more confusion and resulted in the prohibition, as announced by the Ministry of Education, of the use of 'architecture' in the title of any landscape schools (Yu, 1998). Apart from recognising the landscape profession as a sort of modern environmental profession, Taiwanese people still cannot grasp its true

meaning. A few landscape professionals reveal their disappointment at the quality of many landscape works in Taiwan and regard it as the result of an insufficient understanding about the field. This research is therefore initiated from a concern about the very nature of landscape architecture and its identity. As Stiles states, 'as a strategy for escaping from an apparent professional identity crisis, concern with definitions clearly has its limits' (1994: 47). Accordingly, there is a call for a more coherent theoretical base for landscape architecture to serve as a stabiliser that addresses the 'universal truth' in the field (Stiles, 1994; Corner, 1994). Since researches regarding universal landscape theories are rare in landscape literature, this research will have to explore the shared theoretical principles of landscape architecture first. In addition, along the course of this exploration, some landscape projects in Taiwan will be examined, on the basis of identified universal landscape principles, to better understand the Taiwanese landscape practice and to learn about its strengths and weaknesses.

1.2 Research objectives and premise

Although landscape architects may have different focuses in different places, landscape architecture, being an independent discipline, should have its core theoretical principles. As such, while there are various landscape theories, what Stiles calls 'universal truths' must refer to theories in general and these would address the underlying principles or philosophies of landscape architecture. Since this research seeks to better understand landscape architecture and the Taiwanese landscape practice on the basis of the shared theoretical principles of the field, there are two research objectives addressed:

Firstly, this research aims to discover the core theories/principles of landscape architecture and to explore their universality and applications in practice.

Secondly, this research also attempts to examine some landscape projects in Taiwan, on the basis of these universal landscape theories, to gain a better understanding about the Taiwanese landscape practice.

To start searching for the shared theoretical principles of landscape architecture requires a general study direction. Before examining the literature directly, the research premise should be clarified, to suggest the direction of the investigation and to help identify relevant studies.

Being inspired by Lawson's book[1] with regard to the nature of design process, the premise of this research was suggested to the researcher. It was noticed that while Lawson's design process model can be applied to all sorts of design disciplines, the distinction between varied design fields lies in the problem and solution types. As Lawson (1997: 9) states, 'design situations vary not just because the problems are dissimilar, but also because designers habitually adopt different approaches'. Indeed, the way designers of different fields perceive problems and come up with solutions is dissimilar. As such, to study what landscape practitioners think and do in reality, is considered a most desirable way to help identify and explore the core and shared theoretical principles of landscape architecture. Accordingly, the research premise is:
The ideas [values] held by contemporary landscape practitioners in their works would reflect the core landscape theories applied throughout the history.

As landscape architecture has gradually developed into a distinct, specialised and mature profession, different theories have emerged, been tested and applied to the

[1] Lawson B. (1997). How designers think. Architectural Press

development of the field. Thus, this thesis premise also suggests that the study of the values of contemporary landscape architects will reveal the most significant and shared landscape theories that have stood the test of time.

1.3 Research question and methodology

Once the research objectives are defined, the research questions can be proposed accordingly, to direct the following exploration. The first research question asks: 'What are the shared theoretical principles of landscape architecture?' Since this question is too general to suggest the research direction, it must be refined and the research premise stated above must be used to get it refocused. Accordingly, the refined question is proposed as:

'What are the shared theoretical principles of landscape architecture in terms of the principles/values held by contemporary landscape practitioners?'

Once the core landscape principles are suggested, they have to be further explored in response to the research objectives, and thus two more questions come up, asking: 'How are specific cultural/local theories related to the core landscape theories?' and 'What are the strengths and weaknesses of the Taiwanese landscape practice in terms of the core landscape theories?'

Since this research seeks to gain an understanding from the empirical world, methods suitable for empirical study are considered most appropriate. Yet, a brief search into landscape literature is required to identify relevant studies or thoughts. Both Dr. Thompson's research and Mr. Sijmons' landscape approach are then identified as significant to the current study and are carefully reviewed. This review is, in essence,

a literature study, though one is conducted in a form of an interview, which will be explained and discussed more in Chapter three. With the developed knowledge concerning the core landscape values, this research could turn to the empirical world to study other less explored areas. Accordingly, a case study approach is considered the most relevant and suitable method to be employed here. Two types of case study i.e. a comparative study of selected cases and a conventional case study are used in turn to carry out this exploration. A particular method, 'theoretical sampling', is applied to follow up the core landscape values as suggested in the literature study. All these methods will be discussed in Chapter three. In short, the major methods used in this research are a literature study, case study, and the technique 'theoretical sampling' of the grounded theory method. Others, such as fieldwork and an interview are supplementary methods included to help collect information

1.4 Thesis outline

This thesis comprises eight chapters, and they will be briefly introduced as follows:

Chapter one – Introduction: A succinct introduction to this research is presented here to provide a general picture of the whole research and thus prepare the reader for the following discussions.

Chapter two – Research issue: The development of landscape architecture is briefly reviewed and the identity issue of the landscape profession is raised. The development and the predicament of the landscape profession in Taiwan are also discussed as the research background that prompted this research. Three research questions are proposed at the end.

Chapter three – Research methodology: The nature of this research will be defined to discuss the weaknesses and strengths of this research. The adopted methods that are considered most suitable and relevant to this research will also be discussed in turn.

Chapter four – The core landscape theories: This chapter presents a literature study, which is conducted by a focused literature review of Dr. Ian Thompson's research and an interview with Mr. Dirk Sijmons with regard to his landscape approach. The core landscape theories are identified in this study.

Chapter five – The sample case: A comparative study of selected cases is carried out as the theoretical sampling process to discuss the universality and applications of the identified core landscape theories. Fifteen landscape projects are selected from the First National Good Landscape Work Competition in Taiwan as the sample cases.

Chapter six – Comparative analysis: A continued analysis of the sample cases is conducted in this chapter. Two types of comparison are presented; one is between concepts while the other is between projects. The purpose is to gain more understanding about the applications of the core landscape theories in practice.

Chapter seven – Landscape practice in Taiwan: This chapter presents a few more in-depth case studies. Four of the sample cases were reviewed to explore further Taiwanese landscape designers' use of landscape theories. The strengths and weaknesses of the landscape practice in Taiwan are revealed in this exploration.

Chapter eight – Summary and conclusion: This chapter summarises the findings of this research and draws conclusions accordingly. The implications of this research are also discussed.

The following chapters contain many interesting details and findings of this research. The researcher hopes that the readers will enjoy it and find it useful in advancing the understanding of landscape architecture.

2 RESEARCH ISSUE

2.1 Introduction

The research issue presented in this chapter concerns the core theoretical principles of landscape architecture. A brief review of the development and scope of landscape architecture shows that the field of landscape architecture is too diverse to arrive at a consensus on its definition. There is also no shared universal theory in the field to suggest any codified principle or a theoretical basis for landscape architecture. However, instead of seeking unison among different landscape theories, the researches in the field tend to develop theories reflecting cultural and/or local context, which adds even greater diversity to the landscape discipline. The identity of the landscape profession is becoming more differentiated and seems ever changing over places and time. This is indeed a difficult issue without a simple answer, yet many landscape professionals are suffering because of a lack of a clear professional identity. The Taiwanese landscape profession is one example, and this research was initiated from a concern about the predicament of the landscape profession in Taiwan, where the researcher comes from. A discussion concerning the current state of landscape architecture in Taiwan has shown that there is a widespread misunderstanding about the profession, which brings great obstacles to the development of the field and the insufficient understanding of core theoretical principles makes it difficult to define and ask for quality landscape works. Although it is understandable that landscape architects may have different foci in different places, landscape architecture, being a specialised discipline, should nonetheless have shared theoretical principles. This research, therefore, attempts to explore the core theoretical principles of landscape architecture and at the same time to explore their applications within a specific cultural context, i.e. the Taiwanese context.

2.2 The field of landscape architecture

'Landscape architecture', though a constantly contestable term, has been widely used by many contemporary landscape professionals as the most representative title for a specific environmental profession. Yet, the title does not tell much about what the field actually is. To know about the landscape profession requires an understanding of the scope of the work that the professionals are involved with. A study into the origin and development of landscape architecture will give an overview of the professionals' work scope. Nevertheless, this is not to suggest that what will be provided here is a scrutinised historical review back to ancient times to identify the earliest landscape work. The study's key focus will be on the emergence of landscape architecture as a specialised profession. As the investigation will show, the scope of the landscape profession's work covers a wide range, which makes it even more difficult to define what landscape architecture is. Since there is no consensus about the definition of landscape architecture within the field, the lack of a clear professional profile seems to be an inevitable condition that all the landscape professionals around the world have to face, though it is not necessarily a problem to all of them. The following study discusses an approach for the landscape profession to escape from the uncertainty of its identity by strengthening the shared theoretical groundings of the field. Yet, this research direction attracts less interest from researchers and research relating to this area is rather scarce in the landscape literature. Does the landscape discipline in fact, have shared theoretical groundings? What then are the theoretical underpins of landscape architecture? Should landscape researchers consider searching for the answer? This section will present not only a discussion of what landscape architecture is, but also the researcher's approach to these questions.

Being specialised

While the term 'landscape architecture' has gained recognition as a commonly used title for the landscape profession, it has long suffered from widespread inconsistencies in its meaning in many countries. 'Landscape' itself comes with multiple interpretations and thus to coin the term 'landscape architecture', inevitably, it increases the difficulty in attaining a clear understanding of the field to which it refers. Turner (1990) expresses his doubt as to adopting 'landscape architecture' as a professional title but reluctantly, he admits that it is too late to invent a new one. After all, 'landscape architecture' has established a worldwide reputation applicable to specialised usage. However, no literal interpretation helps to comprehend the field which 'landscape architecture' represents and, even worse, consulting definitions of the words can cause more confusion. As Laurie (1976: 7) remarks, 'it [landscape architecture] is a difficult title, for the words seem to contradict one another: landscape and architecture, the one dynamic and ever changing, the other static and finite'. Therefore, looking into the meanings of the words is not only unhelpful but also unreliable to show what the field of landscape architecture is. A better way to unveil the real nature of 'landscape architecture', as Turner (1990) suggested, is to look to the roots of the profession. According to the account of ASLA[2] (2004), 'Tracing the Profession's Roots', a historical progression from the ancient treatment of outdoor space to garden designs in Europe and Britain, is consistently stated as paving the way for the development of landscape architecture. Since this study is more concerned with the emergence of actual usage of landscape architecture by the landscape profession, the focus of the investigation into the professional origin should therefore be placed upon the specialisation of the field. While refusing to consider the

[2] ASLA, the American Society of Landscape Architects

literal meaning of 'landscape architecture', the incidence of formally adopting 'landscape architecture' as its professional title, the evolution of the use of the term and its previous alternatives, and the relevant interpretations or connotative fields of the profession are considered significant instead. These aspects are worthy of study because they depict professional involvements in practice and address the roots and development of landscape architecture; and with such useful information, people, especially those not within the field, may find it easier to build up their understanding about the subject. Hence, the following study will only briefly review the initiation and development of 'landscape architecture' as a specialised field, rather than discussing the very meaning that the term might convey.

The title, 'landscape architecture', is no longer unfamiliar to the public. One can easily consult a dictionary to look for a common definition of the term and find it is referred to as a professional field. However, the use of the term as a professional title was once puzzled over and it has been criticised considerably at all times. The use of 'landscape architecture' as a particular profession is thought to have first appeared with Olmsted and Vaux in 1860 (Mann, 1993). The first official documented use of the title can be traced to America in a letter of resignation with the designation 'Landscape architects' to the New York Park Commission in 1863 (Mann, 1993; ASLA, 2004). According to ASLA, this incident 'marked the symbolic genesis of landscape architecture as a modern design profession'[3]. Furthermore, with his significant contribution to the profession and prolific achievements in practice, Frederick Law Olmsted is credited as the 'Father of American Landscape Architecture' (ASLA, 2004; Kuo, 1999). Even so, the original use of 'landscape

[3] ASLA: http://www.asla.org/nonmembers/publicrelations/what_is_asla.cfm

architecture' is still widely debated. As Turner (1990) argued, 'landscape architecture' was used earlier by Loudon to describe a certain type of architecture. Yet, what Olmsted meant by 'landscape architecture' really has nothing to do with a special architectural style but relates more to the sense of 'landscape gardening' as referred to by Loudon. The relevance of Olmsted's 'landscape architecture' to Loudon's 'landscape gardening' is evident, as Mann (1993: xiii) remarks: 'prior to that time, "landscape gardening" was the most widely accepted term used for the creative activity in which Olmsted was to engage for half a century'.

Although 'landscape gardening' is thought of as the predecessor of 'landscape architecture', they are different in both work scope and theoretical knowledge. This can be seen from the criticism about the works of Andrew Jackson Downing, who is best known as the founder of landscape gardening in America as he devoted himself to the fields of horticulture, architectural design and landscape gardening (Pregill and Volkman, 1999). The effort Downing made to advance landscape gardening is pivotal to the landscape profession, however, as Pregill and Volkman (1999: 479) comment, 'his interests were not of sufficient scope or philosophical depth to constitute the theoretical underpinnings on which the comprehensive profession of landscape architecture has been based'. In this respect, landscape architecture, though related to landscape gardening, seems to have become more developed as a specialised field beyond the scope of landscape gardening. This is the very reason why Olmsted declined to call himself a 'landscape gardener' in favour of 'landscape architect' (Pregill and Volkman, 1999; ASLA, 2004). Thus, it is not surprising that the design of New York's Central Park in the 1850s stands out as a turning point from which landscape architecture emerged as a new profession. Yet its significance must not be overemphasised for the incident is nonetheless 'a continuation of early efforts to

improve public spaces and a break from the concept of designed landscapes solely as works of art lacking a cogent theoretical basis' (Pregill and Volkman 1999: 482). Therefore, instead of launching the profession, the Central Park Design is pivotal to landscape architecture in that 'it made the leap in scale from the small, generally private or semiprivate sites…to a scale that approached that of a small region. Further, it demonstrated that function as well as appearance was important in the arrangement of outdoor space' (Ibid: 487). Thus, through adopting 'landscape architecture' as its professional title, the landscape profession lays claims to its progress in both the scope of work and theory.

Once landscape architecture became a more complicated and specialised field by expanding its work scope, what landscape architects did in practice and their particular concerns toward professional works are the key to revealing the true nature of the field. However, an obstacle appears here as it is not easy to define what counts as landscape works. Since Frederick Law Olmsted was the advocate of landscape architecture, observing his assertions and activities may bring to light the multifaceted profession. Olmsted's projects covered a great range and variety from city parks, urban open space systems, city and traffic patterns, subdivisions, university campuses and private estates, to large conservation works concerned with scenic landscape such as Yosemite Valley; therefore, not surprisingly, there is an inevitable confusion about the field (Laurie, 1976). In this regard, Manning (1975: 19) remarks, 'as the landscape profession becomes broader in scope it becomes no easier to define either the field of work or those who practice in it, but it is worth making a fresh effort to do so. We may all benefit at times from re-thinking our favourite definitions'. Nevertheless, to define landscape architecture is indeed not an easy task and there seems no consensus about the definition of the field (Eaton, 1997). David Jarvis (2002, Feb.: 8) expressed

his ambition to establish a database of modern designed landscapes as a way to describe the field of landscape architecture, because he thinks that 'there is no succinct definition of such a broad profession, nor can there be. Shorter descriptions tend to be intriguing or mysterious, requiring further explanation'. Jarvis' intention and statement may well explain why most landscape architects tend to resort to listing projects that they have been involved in while they describe the scope and nature of their profession. Yet, at the same time, this seems to suggest that a clear and sufficient definition could never exist to account for landscape architecture as a distinct profession. If so, how then can landscape architects be expected to determine their particular professional scope and knowledge? Landscape architects may offer different answers to the question just as easily as various definitions of the profession could constantly be conceived. Yet, what the question inquires is actually more profound – a challenge to the identity of landscape architecture. As Stiles (1994: 47) remarks, 'as a strategy for escaping from an apparent professional identity crisis, concern with definitions clearly has its limits'. Accordingly, to search for a precise definition with the hope of identifying the landscape profession, it is not only unlikely that a desired outcome will be forthcoming but it also has a potential deficiency to reveal the field. To admit to the lack of a settled definition within the landscape profession seems to suggest the intrinsically indefinable nature of landscape architecture. Although the historical review presented so far gives an overview of the field of landscape architecture, it does not provide adequate answers to what landscape architecture is. On the contrary, this study aptly raises the issue that landscape architecture, with a great diversity in its work scope, inevitably has a problem with its identity. To those who are concerned with this issue, they may ask: is there any positive approach to clarify the identity of landscape architecture? This will be thoroughly discussed in this thesis.

Shared basis?

As the above discussion suggests, depending on a definition of the landscape profession does not help much to clarify the field. Eaton (1997: 7) even remarks that, 'despite working in a "named", organised profession, landscape architects have much difficulty in coming to agreement on a specific definition of the discipline'. It seems that to establish the identity of landscape architecture is not only difficult but also may be unlikely. Is landscape architecture merely a 'named' and 'organised' profession? The brief review above of the specialisation of landscape architecture shows that it is indeed a modern concept; yet it is undeniable that the landscape profession has become an independent discipline with sophisticated professional knowledge and extended work scope. However, without a better approach to express and strengthen the consensus within the field, the landscape profession cannot avoid people's challenge to its identity. As Stiles (1994a: 47) contests, there is a call for a stronger theoretical base in landscape architecture as 'a positive, forward-looking view of tacking the problem of the profession's (self-) image...in contrast to concentrating on the negative "closed shop" approach of trying to fortify and defend its outer edges from attacks by potential competitors by devising exclusive definitions'. Stiles further explains that 'such a positive approach would ideally involve strengthening the identity and cohesion at the heart of the profession/discipline by developing a coherent, integrated and unifying approach to the ideas and concepts on which it is based' (Ibid). In short, the remedy Stiles suggests for landscape architecture to confront its identity issue, is to build up a shared theory base of the field. This is indeed an interesting idea, yet finding the coherence within the field of landscape architecture is also not an easy task. Does the landscape profession have universally shared theories? This should be carefully explored.

With a view of defining a shared theory base for landscape architecture, the researcher has to browse the literature of landscape theories to learn about the most commonly shared concepts within the field. However, a brief search shows that there is still a great diversity among different landscape theories. As the article, 'Most important questions', in the *Landscape Journal* (1992: 160-181) presents, the respondents' answers to the editors' question regarding the most important question(s) in landscape architecture today, are given from very different perspectives and considerations. Equally, it is rather difficult to find a consensus among the diverse landscape theories and to suggest a shared base of landscape architecture from the existing literature. It must be admitted that no such thing as a shared theory base can be clearly identified from landscape literature. As Vroom (1994: 117) points out, 'landscape architecture as an academic discipline is in need of a body of knowledge anchored in a theoretical basis and some authors in this issue find this basis to be sorely lacking'. It is therefore not surprising that 'there has been a recent plea by practitioners and academics alike for the creation of a vibrant, all-encompassing body of landscape architectural theory' (Corner 1994: 61). Nevertheless, the call for a more coherent theory base for landscape architecture seems to counter the prevailing research direction, which places the emphasis on local or regional issues. As Corner discusses, theory may be sought after 'on the one hand, to stabilise and provide a set of codified principles of production or, on the other, to resist the status quo, maintaining heterogeneity and prompting change' (Ibid). In view of globalisation and its eclipsing of local identity, environmental designers are keen to explore design theories with respect to local or regional characters, problems or any particular situation. To look for a shared theory base of landscape architecture is, therefore, a research aspect that attracts less research interest and remains almost unexplored.

The lack of researchers' attention is not to suggest that seeking universally adopted landscape theory/theories is less important than research concerning specific cultural or local contexts. As Stile argues (1994b: 38), 'landscape architecture will only come to acquire the status of an acknowledged academic discipline in its own right, when it acquires a universal currency of theory which goes beyond the superficialities of the local context'. Since landscape architecture is getting more and more mature as an independent discipline, there should be certain shared theoretical principles within the field, even though they might be tacit or indeterminate. Therefore, this research aims to explore the core theoretical principles that are commonly shared by the landscape professionals. Yet, the research will not focus on building any shared theory base for landscape architecture. As Stile discusses (Ibid: 37), 'in order to gain the full benefit from the variety offered by so many different traditions [i.e. varied local/cultural theories] we need to have a commonly accepted baseline against which to appreciate local richness'. Apart from building a theory base, this statement just explains another, yet equally important, value of knowing the core landscape theories. Accordingly, this research will use the core landscape theories as a heuristic tool in understanding the practice of the landscape profession in a specific cultural and local setting, i.e. the Taiwanese context. Taiwan has been selected as the study focus, not only because it is where the researcher comes from, but also because the landscape profession is young there and it has suffered identity problems. By the study and application of the core landscape theories, the strengths and weaknesses of the landscape profession in Taiwan will be explored. The expectation of this research is therefore not only to seek a better understanding of the shared landscape principles but also to provide some positive suggestions for the Taiwanese landscape profession. As the Taiwanese landscape profession is one study focus here, the following discussion will present a succinct review to understand its general conditions and difficulties.

2.3 Landscape architecture in Taiwan

Landscape architecture has developed and become a well-known modern profession in Taiwan. However, while landscape architecture has developed very rapidly in recent years, many landscape professionals and scholars point out that the field is facing many difficulties in practice. The predicament of the landscape profession in Taiwan indicates that landscape architecture remains a novel idea to Taiwanese people and as such, it has not yet matured in Taiwanese society. What landscape architecture means to Taiwan is difficult to answer. To seek more understanding of the Taiwanese landscape profession, further discussion will have to touch upon the development of landscape architecture in Taiwan. This study shows that while landscape architecture has been in existence for a few decades, people from different academic schools hold discordant opinions of its origin. The only consensus is that all the schools regard the title, 'landscape architecture', as the orthodoxy of the field. Nevertheless, the use of the title, 'landscape architecture', is still insufficient to dismiss the confusion about the field in Taiwan. In this section, both the situation and the development of the Taiwanese landscape profession will be discussed in turn.

Current situation

From 1999 to 2001, there was a remarkable growth of landscape schooling in Taiwan. Three new landscape schools were established during the time, namely the schools of: Landscape Architecture in Mingdao University (MDU); Urban Planning and Landscape Architecture in Chaoyang University of Technology (CYUT); and Landscape Design and Management in National Chin-Yi Institute of Technology (NCIT). The first two are four-year university programmes and the latter is a two-year polytechnic course. The incidence of newly emergent landscape schools in such a short time could be regarded as an indicator of the great interest that Taiwanese

people have in this particular field. However, the swift growth rate of landscape schooling is not sufficient of itself to suggest whether the field of landscape architecture is really prospering in Taiwan. The actual condition of the field must be seen from the reality of professional practice in the country. The demand for landscape schools may simply reflect the fact that the field of landscape architecture has caught the attention of the Taiwanese people and is welcomed by Taiwanese society. Why is it so? The answer is found in both the recurring emphasis upon the field and the founding purposes of some landscape schools (Kuo, 1995; Wang, 1998a; Wang, 1999; Wei, 1998; CCU, 2002; CHU, 2002; FJU, 2002; and NCIT, 2002).

It is generally thought that the factor responsible for encouraging public interest in the landscape profession is the rapid economic development in Taiwan. The impact of economic growth has had two aspects of influence upon the living environments of the Taiwanese people. Both aspects result in a great concern for the physical environment of Taiwan, and thus have led to the demand for the landscape profession in Taiwanese society. Since the economic boom in Taiwan, the average public income per capita has risen but, at the same time, the land has become overdeveloped. This is referred to as the background to the establishment of one of the new landscape schools, NCIT. As the school states, 'rapid economic growth has prompted a rise in living standards such that, in 1998, the average income has reached ten thousand U.S. dollars; however, the quality of living environment did not improve, as deterioration in the environment and disorder in the landscape occurred in parallel with economic development. Therefore, while pursuing the economic growth, attentions shall also be drawn to the landscape of rural, urban, housing and working environment so as to better Taiwanese people's life quality' (NCIT, 2002). Whether the influence of past economic growth is more positive or negative on the Taiwanese people, it indeed has

provided the landscape profession with the opportunity for growth. The positive aspect of Taiwan's economic development could be regarded as a direct stimulus on the landscape industry, for only when basic living requirements, such as food, clothing, housing and transportation are satisfied, does the need for recreation and concern for the environment then arise (NTU, 2002). Since Taiwanese people are much better off nowadays, a new era of recreation and tourism is being ushered in, while a common demand for a high-quality living environment is often voiced. On the one hand, the development of the landscape industry comes in tandem with economic growth; on the other, it is an indicator, representative of the standard of living and the economic status of Taiwanese society (Kuo, 1995; NTU, 2002).

The negative influence of economic growth though an indirect factor, seems to have benefited the development of landscape architecture. This is because the fast economic development of the past fifty years has brought about pressures threatening the public living environment. As Taiwan is a small island, only 35,570 square kilometres in area, with seventy percent mountainous land, rapid development has resulted in the over-exploitation of natural resources (MDU, 2002; FJU, 2002). Both the damage to the natural environment and the pressure put upon usable land has increased the conflict between man and nature (MDU, 2002; THU, 2002; Lin, 1999). Hence, people are now more aware of the impact of economic development upon the land and, as a consequence, the need for environmental conservation has become a priority (CHU, 2002; MDU, 2002; NTU, 2002). In response, the landscape profession has been introduced to the Taiwanese people as a sort of special environmentalist agency to deal with environmental works. As Lin (1999: 25) states, 'a brief review of the broad environmental problems in contemporary Taiwan may throw light on how the landscape profession can contribute fully to environmental sustainability'. Hence,

the landscape architecture profession in Taiwan has become well known and is becoming more and more popular. In short, the increase in income per capita, the improvement in standards of living and the demand to raise environmental quality, have all amplified the market demand for the landscape industry (Wang, 1998a).

Nevertheless, no matter how the development of landscape architecture benefits through economic growth, the practical field of the profession remains uncertain and troubled. After all, landscape architecture is still regarded as a new profession in Taiwan (Kuo, 1995; Yu, 1998; Lin, 1999; Ling, 1999); most Taiwanese people still do not understand what landscape architecture really is (Lu, Weng, and Li 1995; Yu, 1995; Wei, 1998). In consequence, landscape practitioners in Taiwan suffered a great deal of misunderstanding about their profession from not only the public but also the government and other related professionals. For instance, landscape professionals are often regarded as environmental cosmeticians, who are only asked to work at the last stage of a project to do decorative or cosmetic work. This narrow sense of landscape architecture persists and many still regard the profession's duties as only being concerned with gardening and environmental embellishment (Lu, Weng, and Li 1995). Consequently, the landscape professionals are often pushed out from the design team and kept away from works of wider scope. Having difficulty in being involved in works of wider scope is not the only predicament the landscape profession is facing. Many practitioners also point out that clients, the government, or other professionals lack an overall environmental perspective (Lu, Weng, and Li 1995; Li, 1995). Since the landscape professionals often have to work under the guidance and supervision of non-professionals, it is tough to ensure quality landscape works (Li, 1995). Therefore, while the expansion of the landscape industry helps the profession to gain social recognition (Wang, 1998a; Wang, 1999), difficulties also arise in establishing

landscape architecture as a well-developed and respected profession (Wei, 1998; Yu, 1998). The landscape profession in Taiwan, as Lin (1999) remarks, 'remains an immature field and strives to establish its professional identity'.

Since landscape professionals are very concerned with their professional identity and argue that the field is often misunderstood, it is interesting to ask what their idea of landscape architecture is. If landscape architecture is more than just about gardening, what is it all about? Will the Taiwanese landscape professionals have any consensus about the meaning of landscape architecture? To learn more about the theory and practice of landscape architecture in Taiwan, the following study will discuss the origin and development of the profession in the country so as to determine what Taiwanese landscape professionals understand about their field.

Two origins

In an attempt to understand the meaning of landscape architecture to the Taiwanese landscape profession, the researcher undertook another brief historical review into the origin and development of the landscape profession in the country. It is interesting to see that while the inception and rapid development of landscape architecture in Taiwan is less contested, there are two different views about the profession's origin in the country.

According to Ling (1998), an educational chronicle suggests that landscape architecture in Taiwan has its ancestry in gardening; the field of landscape architecture was regarded as a sub-discipline of horticulture before the professional career actually existed. Ling believes that the landscape profession in Taiwan, just as in other developed countries, germinated from gardening. Since numerous gardens

have stood for a long time before the emergence of a landscape profession, this view has received public approval (Kuo, 1995; Wang, 1999). The educational perspective of Ling in his approach to the history of landscape architecture has had a great influence on Taiwanese academia, especially those with a horticultural background. Hsiao-Lin Wang (1999), the ex-present chairman of CLASIT (The Chinese Landscape Architects Society in Taiwan) and professor of the landscape architecture school at Tunghai University, concurs with Ling when referring to the professional origin and educational history of landscape architecture in Taiwan, when she states that:

"Like many other countries in the world, the landscape architectural industry in Taiwan developed from a horticultural background. In many cases, landscaping was carried out by two professionals; civic engineers who deal with landscape engineering works, and horticulturalists and nurserymen who handled plant materials. Landscape architectural education since 1950 has therefore been taught in such departments as horticulture and architecture." (Wang1999: 71)

Although landscape education in Taiwan can be traced back to about fifty years ago when 'landscape gardening' was established as a required course in the horticulture school at National Taiwan University (Ling, 1998), other fields, such as architecture and engineering had been involved in landscape practice (Wang, 1999). Therefore, it is generally accepted that, before landscape architecture developed as an independent discipline, landscape practice was undertaken by related specialists or by amateurs without specific professional knowledge (Kuo, 1995; Ling, 1998; Yu, 1998). Indeed, the interests of those from architecture circles in landscape practice are no less than those of the horticulturist and nurseryman. Those who are involved in works that are now recognised as constituting landscape practice are not from the same educational background. Thus, another opinion on the origin of the landscape profession arises

from the concern for the emergence of landscape practice in Taiwan rather than the start of courses that are relevant to landscape education.

When referring to practical works of the landscape profession, it can be argued that historical gardens in Taiwan deserve elaborate investigation as they manifest the progression of landscape architecture (Ling, 1998). However, as Lin (1999) discusses in her research, 'the architecture and landscape of Taiwan has reflected its colonial history...it has been difficult for Taiwan to assert its cultural independence'. With its colonial background, historical gardens in Taiwan present only partial records of a certain period and do not describe, therefore, a continuous development. It seems then just a romantic idea that the development of landscape architecture in Taiwan can be articulated through the country's historical gardens. A line must be drawn between historical gardens and landscape works, in terms of professional practice. Thus, Yu (1998) suggests that the focus should be placed particularly upon the first emergence of the concept and service of landscape architecture. Accordingly, the development of the landscape profession is rather late in Taiwan, especially when compared to other professions. As Yu sees it, landscape architecture in Taiwan is just initiated because it has been only in the past two decades that there have been educated landscape professionals able to undertake the professional tasks.

To account for the earliest introduction of landscaping concepts, Yu refers to the campus planning and design project of Tunghai University. In 1953, the United Board for Christian Colleges in China[4] decided to establish Tunghai University in response to the appeal of Taiwan Christians for a new institute for higher learning. After much

[4] UBCCC; in 1956 the name was changed to the United Board for Christian Higher Education in Asia

careful consideration, Ta-tu Shan (a hill area named Ta-tu), which is located at the western section of Taichung, was chosen as the site of the campus. In November, the board commissioned I. M. Pei, C. K. Chen, and Chao-k'ang Chang to design the campus and actively commenced the work of constructing the school. Yu asserts that this occurrence marks the time when the idea of landscape architecture was introduced to Taiwan. He also refers to some special considerations of the project as approaches in landscaping:

"First of all, the designers chose the indigenous Taiwan acacia, which is capable to grow well even on barren land without sufficient water, and planted plenty of them around the campus. This is the proof of the ecological concept, and...the actual characteristics of the campus are revealed in the way the gradient is dealt with, the planning of the outdoor space, and the arrangement of the pedestrian circuit within the campus" (Yu 1998, translated by the researcher).

According to Yu, Tunghai University campus was itself an expression of the landscape architectural concept. In addition, the planning and design of this campus had already caused a significant stir in the field of architecture at that time. Therefore, even though landscape architecture was not a recognised field in Taiwanese society in the 1960s, most people in architecture's circles had been aware of its potential as a new profession. During the 1960s to 1970s, the pioneers of landscape architecture produced some works, such as the planning of the Yang-Ming Shan national park and the Palace Museum garden design, which have now been credited as landscape architectural projects. Nevertheless, as Yu argues, although the landscape industry had an accelerated development at that time, this decade is really the period when the concept of landscape architecture germinated. This is because 'what landscape architecture actually is' is still not well understood, even within the landscape

pioneers circle and the field is generally assumed to be a mixture of gardening, architecture and landscaping.

Since the landscape pioneers in Taiwan already have discrepant views regarding the origin of the profession, it seems quite unlikely for them to find any consensus about the meaning of landscape architecture. Yet, the following discussion will continue to review the development of the landscape profession in Taiwan to learn more about it.

The consensus?

The discussion so far has presented that people from different academic schools have somewhat contradictory opinions about the origins of the profession in Taiwan. However, whether its origins in Taiwan have more to do with horticulture or architecture, both the fields of academia and practice were well aware of the potential of landscape architecture from the 1950s. Once the field had gained attention, the following two decades turned into the inception period of the profession. From the 1960s, many graduates went abroad to study landscape architecture while pioneers sought to understand the field through both research and practice. Ling (1998) remarks that: around this decade (1960 to 1970) the field of landscape architecture, in terms of a profession, had not come into being in Taiwanese society and professional education was still very primitive. But along with the climax of the property development boom of the 1970s, the landscape profession started to develop and extend rapidly (Ling, 1998; Yu, 1998). In this period, some relevant governmental departments such as the Tourism Bureau, Tourist office, and Parks office were set up and students who had studied abroad came back to work in Taiwan (Ling, 1998). He also notes that the use of 'landscape architecture' instead of 'gardening', 'landscape gardening', or 'gardening and landscaping' as a special title for the profession is

suggested from around this time, and seems to have stemmed from the returning scholars who had studied in America. In Taiwan, the first official use of this term, landscape architecture, was recorded as early as 1972 at the first symposium of landscape planning held by the Tourism Bureau (Ling, 1998).

As the thrust of the landscape industry began around the 1970s, the pioneers of the landscape profession felt there was a need to establish an independent landscape school (Yu, 1998), because it was thought that conventional landscape education within horticultural or architectural courses was restricted and unable to foster enough graduates to serve in the landscape industry. Two landscape schools were then set up, under the agricultural faculty of both the University of Chinese Culture and Tunghai University in 1981 and 1982 respectively (Ling, 1998; Yu, 1998; Wang, 1999, CCU, 2002; THU, 2002). The first professional association of landscape architecture, CLASIT, was also established about two years later (Ling, 1998; Yu, 1998; Wang, 1999). The period between the 1980s and the 1990s saw the landscape profession in Taiwan in its prime. According to the statistical analysis of one magazine, the landscape industry was listed as one of the top 15 vocations in Taiwan at that time (Ling, 1998; Wang, 1999). In addition, more schools and graduate courses in landscape architecture were established and continually developed during this period (Ling, 1998; Yu, 1998; Wang, 1998b; Wang, 1999). Later, the Ministry of Economic Affairs issued a statement that the landscape profession was formally acknowledged as a legal vocation in the country (Ling, 1998).

With rapid development both in practice and education, landscape architecture has acquired a national reputation as an environmental profession. However, while the education of landscape architecture has successfully claimed its independence,

professional practice seems to have lagged behind. With the tradition of multiple professional involvements, landscape practice is still undertaken by architects, engineers, horticulturists and nurserymen. The work division between the landscape profession and architecture remains ill defined (Yu, 1998). Therefore, landscape practitioners and scholars are still to this day seeking to establish a qualification system for the landscape professional. As Ling (1999) states, while the first landscape professional association, CLASIT, was set up in 1984, landscape pioneers were aware of the significance of setting up a national examination for qualifying landscape professionals. This awareness was actually revealed even earlier. As Kuo (2001) remarks, since 1980, several prominent educators and practitioners of the time had devoted themselves to study and proposed legislation for the landscape profession. However, as the Taiwanese people still felt uncertain about landscape architecture and some related professional fields still objected to the establishment of qualifications for landscape professionals, the actions taken to lobby for licensing examinations did not gain much attention from the governing administration of the day. Hence, landscape educators and practitioners in Taiwan are still fighting for the establishment of an official qualification system for this field.

Compared to the predicament of landscape practice, the academic field of landscape architecture is much more auspicious. The only difficulty the academic field of the profession has encountered is the governmental prohibition against the use of the word 'architecture' in a school's title. As Yu (1998) notes, in order to avoid confusion, the Ministry of Education had once prohibited the use of 'architecture' in any other discipline. Therefore, there are various titles in different landscape schools. Nevertheless, all the individual landscape schools present the English translation of their schools as the 'Department of Landscape Architecture' no matter if they are

named literally after the term in Chinese (CCU, 2002; CHU, 2002; FJU, 2002; MDU, 2002; NCIT, 2002; THU, 2002). This may result from the influence of returning scholars who had studied in America between the 1960s and 1970s and the admiration of the Taiwanese landscape pioneers for the professional achievement of western countries in the late 20th century. Following western landscape education traditions, especially the American model, the landscape profession in Taiwan has successfully proclaimed its independence, in terms of education, as a distinct discipline. 'Landscape architecture' has become a widely used term in Taiwan to help clarify it as a distinct profession. Even the 'landscape horticultural group' in the Horticulture School of the National Taiwan University stresses the interchangeable use of 'gardening' and 'landscape architecture' to name the profession while sticking to its horticultural tradition (NTU, 2002). However, using the term 'landscape architecture' to justify the profession did not help the Taiwanese people to grasp the meaning of the field but aroused more confusion. The prohibition from using the word 'architecture' in the official title of the landscape schools shows that merely imposing the professional title on the Taiwanese people, without explaining the nature of the field, did not help foster an understanding of the landscape profession. 'What is landscape architecture?' is a question, which remains unanswered for most Taiwanese people.

This brief review of the development of the landscape profession in Taiwan suggests that the field of landscape architecture is regarded as a modern western environmental profession, rather than a traditional vocation inherited from the ancient knowledge base within the country. While the Taiwanese people are interested in the field, they also feel uncertain about it. Since landscape architecture has been introduced to Taiwan as a western profession of Anglo-American origin (Yu, 1998; Kuo, 1999), it is important for the Taiwanese landscape professionals to have a better understanding of

the essential characteristics of landscape architecture from a universal yet fundamental basis. As was discussed earlier, looking into the shared theoretical principles of landscape architecture helps to clarify and strengthen the position of the field. Therefore, the next step of this investigation will turn from a specific cultural context back to the general field of landscape architecture to explore its core theories. Before the study continues, the research questions should be concisely stated and they will be presented in the next section.

2.4 The research questions

As the discussions have progressed, the researcher's initial concern for the identity of the landscape profession has been directed to the core landscape theories, which are regarded as equivalent to the shared theoretical principles in this research. Accordingly, the big question, 'What is landscape architecture?' has become narrower, to ask 'What are the shared theoretical principles of landscape architecture?' Once the core landscape theories are identified, they must be further analysed within a certain cultural/local context to explore their applicability and contribution to the understanding of landscape practice in a specific culture or country. As such, the next research question is: 'How are specific cultural/local theories related to the core landscape theories?' Since Taiwan has been selected as the sample country, the last question will reflect the researcher's concern for the Taiwanese landscape profession, and it asks: 'What are the strengths and weaknesses of the Taiwanese landscape practice in terms of the core landscape theories?'

The research methodology required to answer these questions will be presented in the next chapter.

3 METHODOLOGY

3.1 Introduction

This research seeks to explore the shared theoretical principles of landscape architecture, which are also referred to as the core landscape theories/principles in this thesis because they stand for the broad scope of landscape theories that landscape professionals share and which they regard as important principles. With these core landscape theories, there will be a basis to further study the way different landscape theories are adopted in actual cases and to better understand the landscape practice within a certain local context. Since this research aims not only to explore the core landscape principles and their applications in general but also to understand the particularity of the Taiwanese landscape practice, there will be two stages of study; and three research questions are proposed. In the first stage, this research asks: 'What are the shared theoretical principles of landscape architecture?' As the study continues, two more questions arise: 'How are specific cultural/local theories related to the core landscape theories?' and 'What are the strengths and weaknesses of the Taiwanese landscape practice in terms of the core landscape theories?'

Of all these research questions, the last two are more straightforward than the first, because when the study has been carried out up to that point, the core landscape theories should have been identified already. Although the first question given a definition to the core landscape theories as the shared theoretical principles of landscape architecture, it is still insufficient to suggest a starting point for this exploration. On what basis the shared theoretical principles of landscape architecture can be discussed must be clarified. In so doing, possible research approaches must be taken into consideration and the most appropriate one should be decided. Since research concerning universal landscape theory is scarce in landscape literature, this

research may have to turn from a theoretical study to an empirical one to seek answers about what landscape architects think and do in reality. Thus, in this research, the shared theoretical principles of landscape architecture will be explored on the basis of the principles or values held by contemporary landscape practitioners. Accordingly, the first research question is refined as follows to focus on the empirical approach this research will adopt.

'What are the shared theoretical principles of landscape architecture in terms of the principles/values held by contemporary landscape practitioners?'

As Torchim (2002) notes, 'the research question is often stated in the context of some theory that has been advanced to address the problem'. This research question here also has its theoretical context. The researcher studied the nature of the design process for design education when studied on a postgraduate course and found that many researchers believe 'design is essentially a matter of pre-structuring problems' (Hillier, Musgrove, and O'Sullivan, 1972) and 'all solutions do not arise from an analysis of all relevant aspects of the problem' (Akin, 1979). In agreement with Lawson's (1997) opinion, the researcher concludes that 'the nature of design process is to find a balance between what one regards as a problem and a solution through an iterative cycle of analysis-synthesis-evaluation activity' (Ma, 1998). This conclusion leaves room for a range of views about the design problems and solutions because designers in different fields, and from different cultural backgrounds, potentially perceive design problems and provide solutions in various ways. Accepting that 'preconceptions are at the heart of design skill' (Aspinall, 1997: 3) not only does this provide a new direction to design education but it also shows the researcher a path toward the search of core landscape theories. If designers cannot avoid subjectivity,

there could be certain preconceived values/principles that the landscape professionals share in understating a landscape case. To understand the principles/values landscape professionals upheld in their works helps to identify the shared theoretical principles of the field. Once the research direction is made narrower and the focus of the following exploration is defined, it is necessary to browse the literature again to make sure no relevant study has been overlooked.

While reviewing research concerned with the core principles/values of landscape architects, the researcher discovered that a recent study conducted by Dr. Ian Thompson, has a significant bearing to the current study. In order to understand and explain the purpose and the role of the landscape profession, Dr. Thompson investigates the values of landscape architects that influence their practice. He presents a tripartite framework, which suggests that, the aesthetic, the social and the ecological fields are the sources of positive value in landscape architecture (Thompson, 2000a). Coincidently, in a landscape planning article (D. Sijmons, 1990), a Dutch landscape architect, Mr. Dirk Sijmons, also refers to the equal importance of three similar aspects of concern for making quality landscape, i.e. the economic, the ecological, and the aesthetic aspects. Since the current study is closely related to Dr. Thompson's research, his study must be carefully reviewed. Mr. Sijmons' idea, though it does not provide enough information, should not be overlooked as well. To seek a better understanding of Mr. Sijmons' statement, an interview is in order. These studies show that both Thompson's and Sijmons' ideas do shed light on the shared theoretical principles of landscape architecture. Yet, the application of these principles in practice, particularly within a specific cultural/local context, is still without adequate exploration. Since Dr. Thompson's research provides a useful heuristic tool,

i.e. the tripartite framework, it will be applied to understand the use of core landscape theories in landscape practice, particularly in a Taiwanese context.

This research is itself an explorative, academic study with the motive to discover new knowledge, or rather, to seek for a better understanding about real world situations, based upon existing knowledge. According to Moore (1987), this research is classified as the type of research that is carried out as an end in itself, which is in contrast to research that is conducted as a means to an end. This kind of study, as Moore (1987: 5) states, is 'more straightforward', and usually has a clear motive 'to increase knowledge and understanding, or at least to reduce the area of uncertainty'. As Moore further comments, a literature study is considered significant in the primary stage of this kind of research because it 'should reveal the existence of other, related work, which needs to be taken into account' (Ibid). This is to suggest that the study into the empirical world is based on the knowledge provided by its related studies in literature. In this research, both the review of Dr. Thompson's research and the interview with Mr. Sijmons correspond to Moore's idea of a literature study. Although an interview is not a common method used in a literature study, it is employed in this research because the statement Mr. Sijmons made in his article, which is considered significant to this research, was not clearly expressed. Therefore, the researcher decided to conduct an interview to clarify his ideas. Apart from interview, methods often employed by disciplines such as literary criticism, arts or history, for close reading, interpreting and criticising are also applied when it is required. This so-called literature study will be presented in the next chapter.

The exploration after the literature study will be directed by advanced inquiries, i.e. the second and the third research questions stated earlier. According to Moore (1987:

5), the originality of a research work is founded at this stage and the research is thus expected to 'break new ground, develop new techniques or explore previously uncharted areas'. Since the core landscape theories are suggested after exploring the relevant studies in literature, the research focus here will shift to the actual application of these principles and their universality in a specific cultural/local setting. Accordingly, this stage of exploration will examine whether these core landscape theories do reflect the universal principles of landscape architecture and discuss the way specific cultural/local theories are related to the core landscape theories. Taiwanese landscape cases are selected as the sample cases to bring the factor of cultural/local particularity into discussion. The actual application of these different landscape principles in landscape practice can also be explored along this study. Since this exploration involves case study, the methods and techniques, which contribute to collecting and analysing case study data, such as grounded theory method, comparative analysis and fieldwork study are relevant. The methods employed here are more complex research techniques and thus will be detailed later in this chapter. Nevertheless, it should be noted that this exploration will be carried out as a case-study research and it contains two types of case study. The first one is a comparative study of a number of selected cases, and in this research, there are fifteen sample cases. The other is four in-depth case studies. The comparative study of selected cases will simply focus on one certain information of all the sample cases, i.e. the design concepts, and it is applied to explore the universality of the core landscape theories in a certain cultural/local context. Since this comparative study itself is insufficient to suggest the strengths and weaknesses of the landscape practice in Taiwan, the conventional in-depth case study will be employed to look into few more Taiwanese cases into detail. The differences between these two types of case study will be discussed later.

3.2 The nature of this research

So far, the methods used in this research are briefly referred to. Some of these methods need to be discussed further. Yet, the nature of this research, or the type of research it belongs to, should be clarified first. Understanding the research nature helps a researcher to be aware of the potential advantages and restrictions of the study. Accordingly, the selected research methods will be properly examined and applied. This research is recognised as a qualitative study. It is not because the selected research methods are usually employed for qualitative research, but because the epistemological position of this research is the same as the studies called as 'qualitative', 'naturalistic', 'ethnographic', or 'post-positivist' inquiry. In referring to an epistemological stance, qualitative research differs from quantitative in that it is regarded as a completely different research 'paradigm' rather than a method (Westbrook, 1994). As Henwood and Pidgeon (1995: 115) remark, this ontological perspective also contains the implication that 'quantitative and qualitative approaches are often seen as distinctive, and possibly incommensurable, research paradigms'. However, a combination of both approaches in a qualitative research is still possible and, as Borg and Gall (1989) suggest, quantitative data could provide basic research evidence to support qualitative analysis. Thus, while the main focus of the current research is on a qualitative inquiry to explore concepts and relationships concerning the shared theoretical principles of landscape architecture, statistical data could also be used in any case study to show a general percentage or pattern of the application of different theories among the sample cases. Nevertheless, the generalisation from the case study results, as Yin (1994) emphasises, is still analytical rather than statistical.

To discuss the epistemological stance of this research is not to rule out quantitative research techniques, but to keep the study in the right path. As Borg and Gall (1989:

380) note, 'both qualitative and quantitative research have philosophical foundations, characteristics, and techniques that make them ideally suited for the exploration of some questions and inadequate for the investigation of others'. The choice and application of qualitative methods really depends on the nature of the research problem (Strauss and Corbin, 1998) rather than the preference of the researcher. Moreover, discerning the differences in basic assumptions between qualitative and quantitative approaches will not only direct a researcher to suitable research methods but will also reveal the inherent strengths and weaknesses of both research paradigms. As this research is a qualitative one, the root and characteristics of qualitative research should be discussed in some depth.

In contrast to quantitative research, which is 'premised on a natural science approach' (Henwood and Pidgeon 1995: 115), 'the qualitative model has emerged primarily from the social sciences' (Borg and Gall 1989: 382). The basic assumption of qualitative research, as Winegardner [5] states, is that 'features of the social environment are constructed as interpretations by individuals and that these interpretations tend to be transitory and situational'. As such, to interpret the social world from the insider's viewpoint for a thorough and holistic understanding of each subject or phenomenon is difficult to accomplish through the conventional research methods of a quantitative paradigm. After all, a quantitative approach, with its goal of discerning the statistical regularities of the subject matter, is not tailored to research that seeks for meaning, understanding, or *verstehen* (empathic understanding). In an attempt to identify the core landscape principles shared by contemporary landscape

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[5] Kaven E. Winegardner, page 1 of the file
https://cpub.brown.edu:8543/cpubsh/Raymond_Hyatt-SO0105_S02/materialadd2.pdf

architects and the way they are considered in actual landscape cases, especially in a specific cultural setting, the current research will have to learn about real-life experience through empirical study, which ultimately places it within the context of qualitative research. Therefore, the selected methods, no matter how capable they could be to deliver interesting quantitative result, must be applied carefully.

Knowing the characteristics of qualitative research will provides some guidelines to examine the application of research methods. Yet, before referring to some generally accepted characteristics of qualitative research, the philosophical foundations underpinning the qualitative paradigm should be introduced succinctly. Borg and Gall (1989) sum up the different epistemological stances underlying qualitative and quantitative research models, in five aspects. Since the focus here is on qualitative research, the following are the stances of a qualitative paradigm from the comparison made by Borg and Gall (1989):

1. *The nature of reality*: Qualitative paradigm suggests that the total setting in which each phenomenon occurs is different and, thus, each case can only be studied holistically. In this regard, prediction or control is unlikely to be achieved even though some level of understanding can be reached.
2. *Relationship of the researcher to the research subject*: The researcher and the research subject are interconnected. There exists a close interaction between them.
3. *The possibility of generalisation*: The research inquiry aims to develop a body of knowledge, which is unique to the studied individual. Thereafter, hypotheses about the individual could be developed.
4. *The possibility of causal linkages*: To distinguish causes from effects is impossible, as there is a state of mutual simultaneous interaction regarding elements in the studied phenomenon.

5. *The role of values in inquiry*: Research is inevitably value-bound. Values from many sources such as values of the researcher, the choice of theory, the methodology employed, and the values inherent in the context of the inquiry, all have potential influences on the research inquiries.

From these epistemological stances, the characteristics of qualitative research could be readily discerned and described. In accordance with the five aspects above, the characteristics of qualitative research are summarised as follows (Merriam, 1988; Borg and Gall, 1989):

1. *Research focus*: Qualitative research emphasises studying the whole setting of a subject or phenomenon so as to gain a depth of understanding as an end in itself rather than to provide prediction or universal laws of cause and effect. As a result, the focus of study is on social processes and the meanings people bring to social situations. The interest of the researcher is in getting the emic, or insider's, perspective to understand reality. As such, qualitative research reflects the real world experience and shows a holistic concern with studied phenomena.

2. *Data collection and analysis*: The researcher is the primary instrument for data gathering and interpreting. While conducting a qualitative research, the researcher will rely largely on the human abilities to observe, interview, mediate, and interpret to acquire information and achieve understanding. In this way, as it is sufficiently more flexible than a non-human instrument, the qualitative researcher is able to look into the complex social situation in its total context and to 'take into account biases that result from the interactions and value differences between the "instrument" and the subject' (Borg and Gall, 1989: 385).

3. *Knowledge generalisation*: Instead of testing preconceived hypotheses, qualitative research builds abstractions, concepts and hypotheses to reveal unanticipated outcomes. To contrast with deductive analysis, which seeks out data to match a theory, the qualitative researcher adopts an inductive approach to find a theory that explains their data (Goetz and Lecompte, 1984). Therefore, while there is a lack of theory or existing ones are insufficient to explain a phenomenon, the qualitative researcher might develop understanding and draw generalisations through studying data inductively. In this way, the qualitative researcher may generate a particular form of theory, 'grounded theory', which is grounded in the data to reflect the real world experience.

4. *Research inquiry*: Qualitative research seeks not for statistical evidence or a theoretical formulation of a cause and effect relationship but to interpret, or rather make sense of real-life events or phenomenon in their natural setting. In order to gain a deep understanding of studied subjects, investigations are aimed at identifying, developing and relating concepts, typologies or themes through purposive sampling and comparison. In contrast to random sampling for statistical analysis, the qualitative researcher deliberately selects sample cases, including deviant cases or non-typical subjects, so as to 'uncover the full array of "multiple realities" relevant to an inquiry' (Borg and Gall, 1989: 386).

5. *Research objectivity*: While advocating the human ability to gather and analyse qualitative data and emphasising an insider's perspective of the phenomenon, it is acknowledged that meaning, or interpretation, is mediated through the perceptions of the investigator (Merriam, 1988). 'Because of the complexity of the situation and the fact that much of the interaction with the subject occurs at the subjective

> or intuitive level' (Borg and Gall, 1989: 386), qualitative researchers legitimise the utilisation of their intuitive insights, tacit knowledge or professional experience to make conceptual and theoretical sense of the studied phenomenon. They are, therefore, regarded as subjective researchers, who are aware of bias but 'systematically acknowledge and document their biases rather than striving to rise above them' (Mellon 1990, 26).

Being placed in the context of qualitative research, this research will necessarily inherit the strengths and weaknesses of research of this sort. As the characteristics of the qualitative paradigm are discussed so far, the merits and defects of qualitative research can be readily discerned. The advantageous aspect, according to Olson[3], is summed up by the defining characteristics of the qualitative research paradigm. He notes that 'positive definitions of qualitative research collectively include its being holistic, environmental, or contextual; inductive or dialectical; pluralistic or relative; and its involvement of the object of the research'. All these positive views reflect and refer to the epistemological or ontological stance of the qualitative paradigm. In this regard, the real merit of qualitative research is that it justifies and opens a door for researches that cannot be carried out by the conventional quantitative paradigm. Therefore, the strengths of qualitative research are often referred to by its characteristics. Nevertheless, the inherent characteristics of qualitative research, as presented above, are neutral because they can justify and benefit certain researches but are disadvantageous to others.

As to the negative aspects of qualitative research, Olson only brings up one point, which is its non-manipulative or non-controlling nature. This point is more a methodological than an ontological concern. In terms of methodological difficulties,

qualitative research is often criticised for its time-consuming process of investigation, the difficulty of data analysis, and the lack of statistical precision and objective results. These methodological shortcomings and obstacles may not all be avoided when conducting a qualitative research, but it is possible to limit their negative influence and to do so will depend largely on choosing suitable methods. Here, some principles advised by Moore (1987) are helpful to this research. They are: *keep things simple*; *borrow from others* (which is to learn from other research); *collect what is really needed*; *beware of the distortion which the research creates*; *use available expertise*; and *accept that some things cannot be measured* (Moore 1987: 60-68).

Based on Moore's principles, the major research method for this research will be the method of case study. This is because the exploration in this research is largely based on comparing and analysing landscape projects. Other supplementary methods, such as grounded theory, field study, and literature study are adopted as techniques to help in collecting and analysing data. The way these approaches are used will be discussed in the next section. Before proceeding to detail these chosen methods, the researcher would like to respond to the issue of potential subjectivity in a qualitative research. As Mellon (1990: 72) comments, subjective research accepts that 'different theories may be simultaneously valid according to the researchers', and presumably the respondents', interpretations'. Indeed, different people could have different understandings to the same fact. Yet, this is not to say qualitative research will deliver less valid results. Usually, qualitative researchers use a clear logic and adequate understandings about the facts to build up solid statements. Appropriate methods and careful use of them help to gain useful information and show the logic of the study. Thus, the following section will continue to discuss these methods.

3.3 Case study research and grounded theory method

This section has two main discussions. Firstly, the discussion will focus on why and how case study is used as the overall methodology of this research. Although a case study approach is sufficiently flexible to be adapted for researches with different epistemological stances and investigation focuses, the potential difficulty in conducting a case study research lies in the lack of rigour in its research process. Unlike case study teaching, the case study research method cannot permit case information or materials to be deliberately altered or arbitrarily used to emphasise a particular point (Yin, 1994). Case study research requires a research plan that 'links the data to be collected (and the conclusions to be drawn) to the initial questions of a study' (Yin, 1994: 18). In addition, other research methods, which not only help in data collection but also data analysis, are often needed to complement the investigation. This leads to the second part of the discussion wherein the methods of grounded theory, which are adopted as the major techniques in this research to select sampling cases and guide data analysis, will be introduced.

3.3.1 Planning a case study research

Case study is often regarded as a method of conducting qualitative research. However, since 'case studies can be based on any mix of quantitative and qualitative evidence' (Yin, 1994: 14), it is always emphasised as not synonymous with qualitative research. The case study method is indeed a flexible and adaptable research strategy to be applied to researches with different epistemological stances. By focusing on holistic descriptions and explanations of a phenomenon or an entity, the case study method is used to uncover the relationships between significant factors of the studied object. As such, the case study method 'excels at bringing us to an understanding of a complex issue or object and can extend experience or add strength to what is already known

through previous research' (Soy, 1996: 1). To give a succinct definition according to Yin (1994: 13), the case study is stated as 'an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident'. In response, the case study is the preferred method 'when "how" or "why" questions are being posed, when the investigator has little control over events, and when the focus is on a contemporary phenomenon within some real-life context' (Ibid: 1)

In order to understand the way landscape practitioners use core landscape theories in landscape practice, particular within a specific cultural/local context, this research will have to study a number of landscape projects that had been accomplished in real world situations. Every landscape project stands for some reasons or beliefs. Therefore, as Francis (1999: 1) remarks, the written and visual documents of studied cases not only contain 'the primary body of knowledge in landscape architecture' but also 'serve as the collective record of the advancement and development of knowledge in landscape architecture'. The contemporary built cases can reveal the most significant or rather the core theories of landscape architecture that have been introduced to the field along its development and been sieved out through time. However, the purposes, design ideas, and many other considerations are all mingled together in each project. To extract the desired information is important. Although to reach a proper understanding will definitely require adequate information, the use of the collected data really depends on the purposes of the study. Accordingly, the comparative study of selected cases in this research will only analyse the concepts behind each landscape project. Yet, the conventional case studies will still be adopted in this research to carry on further exploration.

Since the research method of this study is settled on the case study method, a research plan is necessary as it helps to determine the direction and techniques of data collection and analysis. To work up a research plan is useful for all kinds of researches, but it is particularly important to case study research processes because a thoughtful plan offsets the usual criticism of the case study method and its potential to distort research results and conclusions. With a research plan, the studied cases will not be used arbitrarily to speak for ideas or merely themselves, but will be analysed deliberately to seek for insights or evidence. Yet, a poorly planned case study can still allow equivocal evidence or biased views to distort the whole research. Thus, many case study researchers, such as Helen Simons (1980), Robert K. Yin (1984, 1994) and Robert E. Stake (1995), have studied the procedures and techniques to successfully organise and conduct a case study. By summarising their works according to Soy (1996) and Crosthwaite, MacLeod and Malcolm (1997), some critical steps when planning a case study research are proposed and introduced as follows:

1. *Establish a firm research focus*: According to Soy (1996:1), 'the first step in case study research is to establish a firm research focus to which the researcher can refer over the course of study of a complex of phenomenon or object'. To fix the focus, the researcher will have to determine the study purpose and to clarify the theoretical proposition whether it is *a priori* proposition or a tentative theoretical construct.
2. *Define the unit(s) of analysis*: At the second step, what the "case" is must be clearly defined. The unit of analysis should not be confused with the physical entity of the studied case(s), such as an individual, a group, an institution, or an artefact. 'As a general guide, the definition of the unit of analysis (and therefore of the case) is related to the way the initial research questions have been defined' (Yin, 1994: 22).

3. *Determine the number of cases and specify the criteria to select cases*: Here, the case study researcher will have to decide on analysing independent cases or comparing a number of cases according to the study purposes. Unlike statistical sampling, the number of cases in a case study research is not decided by the rules of minimum requirement to achieve statistical validity. Cases are selected purposively so as to extend emergent theory, fill theoretical categories, provide examples of polar types, or replicate previously selected cases (Eisenhardt, 1989). Therefore, the selecting criteria will be set to reflect the purpose of research rather than statistical validity.
4. *Choose the suitable method(s) for data collection and analysis*: As Borg and Gall (1989:402) comment, 'case studies often incorporate a variety of qualitative data-collection methods'. In addition, as Winegardner[6] states, the following step of data analysis in case studies is 'generally regarded as occurring simultaneously with data collection'. As such, the researcher needs to opt for other research methods or strategies that are effective and appropriate to help in not only collecting but also analysing data.
5. *Collect, analyse and evaluate the data*: In the last step, the researcher processes the raw data 'using many interpretations in order to find linkages between the research object and the outcomes with reference to the original research questions' (Soy 1996: 3). The process in this stage, as Winegardner remarks, is iterative because 'analysis begins with the first data collected, and the emerging insights and tentative hypothesis direct the next phase of data collection'[7].

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[6] Kaven E. Winegardner, page 4 of the file:
https://cpub.brown.edu:8543/cpubsh/Raymond_Hyatt-SO0105_S02/materialadd2.pdf

[7] Kaven E. Winegardner, page 4 of the file:
https://cpub.brown.edu:8543/cpubsh/Raymond_Hyatt-SO0105_S02/materialadd2.pdf

This five-step guide for planning a case study research is general, yet are suitable to be applied in case studies of different epistemological stances. Nevertheless, as the research purpose varies in different case studies, the actual research plan for each case study will show a wide diversity. According to the first step, the researchers are asked to define their case study type. After all, there are different types of case study researches, and their classifications can also be presented in different ways. In terms of epistemological differences, there are interpretative, positivist, and critical models of case study research (Winegardner, 2002). Being classified according to the research purpose, case study can also be differentiated as exploratory, descriptive, explanatory (Yin, 1994), or for evaluation (Gall, et.al. 1966). This research, as discussed earlier, is a qualitative research, which aims to explore the core theories of landscape architecture and the way they are considered in real projects. Therefore, the case studies will be placed within the interpretative model and be mainly for exploratory. Nevertheless, as Dr. Thompson's research provides insights and a ground for interpretation, the case studies in this research will not be restricted to exploration only but will be used to seek explanations. As will be seen in chapter five, the selected cases are evaluated and compared to suggest a possible explanation for using the core landscape theories in reality. But, the use of a case study to seek explanation in this research should be distinguished from Yin's positivist case study model. Instead of testing hypotheses, the evaluations of cases are used for further comparison to better understand the applications of the core landscape theories in real cases, particularly in Taiwan. This research therefore remains post-positivist rather than positivist.

The second step requests a definition of the case study unit and this will depend largely upon the research questions. As this research first inquires into the universality of the core landscape theories within a specific cultural/local context, the case study

unit for this exploration is focused upon the design concepts of the sample cases. Additional information, such as the project size, location, clients, designer, cost and date designed/completed, will also be provided as sub-unit to provide a general background for each case. Nevertheless, the analytical focus here will only be placed on the design concept. Therefore, while all the design concepts of the sample cases are analysed, the sub-unit information is simply presented without further analysis or discussion. As it is stated earlier, this stage of case study is referred to as a comparative study of selected cases, which is 'generally considered to strengthen or broaden the analytic generalizations'[8]. Thus, it is also applied in this research to suggest the potential patterns that the core landscape principles are used in landscape practice. However, this analytical generalisation only offers a reasonable assumption, which requires more study to be proved right. Since this research seeks to better understand the landscape practice in Taiwan rather than building a norm for proper application of the core landscape theories, the following case study will not continue on this subject but to look into a couple of the sample cases in detail to discuss more the case context and the designer's motives in selecting certain landscape theories. Therefore, in this research, while the prior case study compares different cases, the following case study considers individual cases. Yet, it must be noted that the use of a comparative study of selected cases or the conventional case studies has to reflect the research inquiries and keep the study in focus. As it is explained, in this research, these two types of case study are used in sequence to achieve different study purposes. The study focus of the former is on the universality and application of the core landscape theories while the latter concentrates on the landscape practice in Taiwan.

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[8] Kaven E. Winegardner, page 9 of the file:
https://cpub.brown.edu:8543/cpubsh/Raymond_Hyatt-SO0105_S02/materialadd2.pdf

When concerning the criteria for case selection, not many intrinsic restrictions are set in regard to what cases are suitable to be studied in this research, especially at the second stage of the case study. Once sample cases are discussed, those have potential to provide more information about landscape practice in Taiwan are ideal cases to be further explored. As to the selection of sample cases, there will be few requirements. Since this research concerns the core landscape theories and their applications as revealed in contemporary landscape projects, the first criterion is that the selected cases must be recognised as landscape works. To provide a desirable definition for landscape projects is not an easy task. Therefore, an alternative approach is to select the cases directly from those have been accepted by the experts as landscape projects. As Francis (1999: 1) comments, 'professional design awards are a useful source of exemplary case studies'. Prize-winning projects in the field of landscape profession may provide a channel to ideal sample cases. In addition, the projects receiving professional award often demonstrate mainstream ideas, and could contain more desirable information to be analysed for the current study. Therefore, this research decides to study the projects that win awards in a landscape professional competition. In this way, the chosen cases will spontaneously match the first selection criterion for they had been accepted as landscape projects suitable for inclusion in a competition. However, choosing a suitable landscape professional competition was not so straightforward. In addition, different professional competitions may have different focuses and purposes. As the investigation in this research is to explore the core landscape theories and their application in landscape practice, the sample cases should cover as much as possible, the various scopes and types of landscape projects. An unsuitable type of competition might limit the sampling scope. Accordingly, the purpose of the design competition and the criteria for entry projects must also be taken into account.

According to the theoretical sampling technique of grounded theory method concerning *theoretical reference* (this will be discussed in the next section), the sample cases not only should be recognised landscape projects, but also have to reflect a cultural/local factor. As it was discussed, Taiwan is selected as the sample region to bring in this required factor. Accordingly, the suitable landscape competition should be selected from Taiwan. Although landscape architecture is a young profession in Taiwan, many landscape projects were undertaken during the fast growth phase of the landscape industry. Moreover, as landscape projects are not well classified into various categories in Taiwan, a broad variety of landscape projects are all tolerated in the same landscape professional competition. Since there are not many landscape competitions in Taiwan, a more formal one, 'The First National Good Landscape Projects Competition', is considered more creditable to present suitable landscape cases for this research. This is the first landscape architectural competition held by the Taiwan government to award and encourage landscape practitioners who have been devoted to improving the environmental qualities through the creation of various landscape works. There were no restricting conditions for entry to the competition so as to include all types and scales of landscape works in Taiwan. As long as the project was not merely natural scenery but a deliberately planned and designed work with its surrounding environment acting as a whole landscape, no matter what scale the case was, it was acceptable for entry to the competition. Since this research intends to discuss the strengths and weaknesses of Taiwanese landscape practice on the basis of the core landscape theories, it is appropriate to select the cases that are recognised as good landscape works in Taiwan and re-examine their quality. Therefore, 15 prize-winning projects of Taiwan's 'First National Good Landscape Project Competition' were selected as the sample cases in this research.

3.3.2 The evolving (emerging) theory and theoretical sampling

Although this thesis does not present a hypothesis to be tested in the following study, tentative theoretical guidelines can be provided after the literature study, i.e. the detailed review of Dr. Thompson's research and the interview with Mr. Sijmons. Before case studies can be carried out to explore the universality and applications of the core landscape theories in a specific cultural context, the literature study must suggest the core landscape theories and the possible relationship of universal principles and cultural/local theories in landscape architecture. The discourse analysis of Dr. Thompson's empirical study presents a general classification of landscape architects' value statements, which provides a basis for further exploration of the core landscape theories. Mr. Sijmons' landscape method though is itself a landscape approach generated from a concern for the landscape practice in the Netherlands, points out a clear theoretical reference of the core landscape theories back to the architecture principles suggested by the ancient Rome architect, Vitruvius. Mr. Sijmons' method not only supports Dr. Thompson's research but also shows the connection of a cultural/local landscape approach to the aesthetic discourse identified in Dr. Thompson's interview as 'Good Design'. The study of both Dr. Thompson's research and Mr. Sijmon's method proposes a tentative theoretical construct or explanation, which plays an important role in guiding data collection and analysis of the case study. Since this tentative explanation is not a hypothesis to be test but a theoretical possibility to be further explored, the 'theoretical sampling' technique of grounded theory method is introduced in the first stage case study of this research as the data collection and analysis strategy to follow up this tentative theoretical construct. The grounded theory method and the concepts of 'evolving theory' and 'theoretical sampling' will be briefly discussed as the follows.

Grounded theory

Grounded theory when referring to the original work of Glaster and Strauss (1969: 1) is simply defined as 'a general method of comparative analysis'. As the method develops, more detailed procedures are formulated in order to generate a theory that is grounded in the data. Thus, according to Strauss and Corbin (1990: 24), the definition of grounded theory is extended as 'a qualitative research method that uses a systematic set of procedures to develop an inductively derived grounded theory about a phenomenon'. Many grounded theorists have elaborated techniques for developing grounded theory. According to Henwood and Pidgeon (1995: 116), the strategies of grounded theory method in handling qualitative data could be summarised as follows:

1. The generation of low-level categories to describe relevant features of the data corpus.
2. Creating definitions of, and linkages between, categories at different levels of abstraction.
3. Making constant comparisons between cases, instances, and categories in order to fully explore the complexities of a data corpus.
4. Theoretical sampling of new cases, where new data is likely to extend emergent theory.

The research process of grounded theory involves indexing, coding and sampling. In the early stages, the analyst looks into data to identify or discover concepts that are relevant to the research question. In later phases, the major constructs, or categories, are defined, related and developed to provide a theoretical account of the studied phenomenon or subject. While the theoretical account is developed from the data, new cases, persons or documents will be selected and studied to confirm and refine the

core categories and the theory as a whole. Data collection and analysis are deliberately fused as the process of theorising by constantly making comparisons and raising questions, the two key procedures of the grounded theory method. As such, in grounded theory, data collection, analysis and theory formulation are regarded as reciprocally related. And part of the grounded theory method itself, is assumed as the writing of theory (Glaser, 1978).

The grounded theory method claims that the eventual theory is emergent from, or grounded in, the data. With a strong inductive logic, the method requires the analysts to deliberately avoid predetermined ideas or prior hypotheses in gaining theoretical sensitivity (Glaser, 1978). As such, a literature review is usually delayed till the emergent theory is developed so as to 'not contaminate one's effort to generate concepts from the data with preconceived concepts' (Glaser, 1978: 30). Nevertheless, as Charmaz (1990) discusses, grounded theorists, rather than reflecting a *tabula rasa*, bring to their studies the general perspectives of their disciplines, their particular interests or their other proclivities. Most works of grounded theory could still assume a theory of reality. The grounding in grounded theory becomes a contentious issue and revisions of the method have been prompted in different researches. Charmaz (1990), for example, presents a constructivist version of grounded theory to study the way chronic illness affects the patients' self-concepts. From the constructivist perspective of Charmaz (1990: 1165), the researcher must have a firm grounding to create categories, and this stance of the grounded theorist 'implies a delicate balance between possessing a grounding in the discipline and pushing it further'.

Although the method of grounded theory presents a distinct approach to develop theory from unstructured empirical materials, the grounded theory analyses can

always be refined and modified like any other analyses. Charmaz (1990: 1171) suggests one possibility of modification and states that 'grounded theory analyses can be enriched by clarifying the researcher's epistemological premises and by reaching back into extant theory'. By disregarding the whole set of theory development procedure, researchers with varied research problems can use the strategies of grounded theory and adjust the analyses according to their investigation purposes. The major strength of the grounded theory method is not so much related to its claim as a promising procedure to generate grounded theory, but lies in its methodological merit as open-ended and flexible. Researchers using the grounded theory method are allowed to follow up on ideas they create throughout the analysis so as to examine an issue thoroughly. Therefore, as Henwood and Pidgeon (1995: 117) comment, the value of the grounded theory method is that 'they [the strategies of the method] help to keep researchers on an analytic path'. Setting aside its specific use for theory development, the grounded theory method, with its simplest definition as a comparative analysis method, is actually applicable to many researches. As Glaser (1978: 6) states, 'the grounded theory method, though uniquely suited to field work and qualitative data, can be easily used as a general method of analysis with any form of data: survey, experiment, case study'. In this sense, the grounded theory method refers not only to a particular methodology to build theory out of qualitative data but also as a general method to conduct data analysis.

When applied as a methodology with its particular tenet and procedures, grounded theory will be limited to certain types of researches only. As the research objectives are different, the methodology of each research alters accordingly. Researchers usually select appropriate methods, techniques or strategies to assist the investigation rather than unchangeably follow a fixed procedure of a particular research

methodology. Although the detailed procedures of grounded theory, such as theoretical sampling, theoretical coding, theoretical memos, theoretical sorting etc. (Glaser, 1978), are useful techniques to handle qualitative data, they are not all adopted in this research. The current study does not employ the whole methodology of grounded theory. However, the strategies of the grounded theory method do shed light upon the connection of Dr. Thompson's research findings and the current study. By theoretical sampling, this research could apply the value discourses revealed in Dr. Thompson's empirical study to advance the exploration into the universality and applications of the core landscape theories in a cultural/local context. As such, while case study is used as a consistent research methodology for the current study, the method of grounded theory is employed as a strategy to collect and analyse the data of the studied cases.

Theoretical sampling and evolving theory

Theoretical sampling, as it is aptly termed, is to sample purposively on the basis of a theoretically relevant construct, which is developed from the previous steps of study throughout the ongoing process of analysis. According to Glaser (1967: 45), theoretical sampling is defined as 'the process of data collection for generating theory whereby the analyst jointly collects, codes, and analyses his data and decides what data to collect and where to find them'.

The general procedural to sample theoretically, as Glaser (1978: 37) explains later, is 'to elicit codes from raw data from the start of data collection through constant comparative analysis as the data pour in. Then, to use the codes to direct further data collection, from which the codes are further theoretically developed with respect to their various properties and their connections with other codes until saturated'. In

short, constant comparison is at the heart of the process and tentative theoretical construct is the product of the process. Data collection is conducted according to the development of the tentative theoretical construct, which is called 'the emerging theory' by Glaser (1967) or 'the evolving theory' as Strauss and Corbin (1994) put it. The purpose of the whole sampling process is to 'discover categories and their properties, and to suggest the interrelationships into a theory' (Glaser 1967: 62). Here, a category and its properties, which are developed along the coding procedural to interpret or make sense of the data, are referred to as a theme or variable and its characteristics. According to Glaser (1978: 153), a category is defined as 'a conceptual element of theory' and a property, in turn, is 'a conceptual aspect or element of a category'.

Theoretical sampling is conducted when concepts or codes are identified as relevant to the research question at the initial stage of investigation. As long as the beginning codes are elicited 'no matter how conceptually primitive, quickly start theoretical sampling and constant comparisons of incidents' (Glaser 1978: 45). It is believed that 'unless the researcher is building on or continuing with his or her own previous studies, the researcher will not be able to enter into the project with a set of pre-established concepts or with a well-structured design' (Strauss and Corbin, 1994: 33). In this respect, theoretical sampling should follow the concepts developed from the empirical studies rather than a preconceived theoretical framework (Glaser 1967). However, Glaser (1978: 45) suggests that 'if an existing theory seems quite grounded in data, one can possibly begin with it'. Since Dr. Thompson's empirical study offers insightful categories with regard to the positive values held by contemporary British landscape architects, the current study will apply his research findings to further explore these core values by a theoretical sampling of more landscape projects.

According to Dick (2002), theoretical sampling helps to strengthen the tentative explanation of the study subject by defining the properties of the categories and the way these properties mediate the relationship of category to category. Therefore, theoretical sampling is 'used as a way of checking on the emerging conceptual framework rather than being used for the verification of preconceived hypotheses' (Glaser 1978: 38). To differentiate theoretical sampling from the conventional deduction of hypothesis testing, Glaser calls its logic, conceptual deductive logic, and its deductive work, conceptual elaboration. Glaser (1978: 40) notes that 'conceptual elaboration during theoretical sampling is the systematic deduction from the emerging theory of the theoretical possibilities and probabilities for elaborating the theory as to explanations and interpretations.' The fundamental difference in this conceptual deductive logic lies in its particular purpose of investigation. The aim here is to discover more ideas and their connections from data. New ideas or strange data can be treated as an opportunity for a theoretical expansion, refinement and enrichment of the emerging theory, rather than a disapproval of the deduced hypothesis (Glaser 1978). Theoretical sampling, then, while following a deductive logic, still remains on the inductive path of the investigation in this research.

So far, the idea, process, purpose and logic of theoretical sampling have all been briefly discussed. An operational question then arises concerning the selection of sample cases. The criteria, as Glaser (1978: 42) states, are 'those of theoretical purpose and relevance not of structural circumstance or of preconceived preconception'. As theoretical purpose is 'embodied in generated ideas or ideas deducted from them' (Glaser 1976: 42), case selection is not planned before the research investigation but is governed by the tentative theoretical construct, so the chosen cases must have a theoretical relevance for furthering the development or

understanding of the identified categories. According to Glaser (1967: 48), these criteria are flexible as they are 'designed to be applied in the ongoing joint collection and analysis of data associated with the generation of theory'. Therefore, in Glaser's model, the researcher could choose any group as long as 'that will help generate, to the fullest extent, as many properties of the categories as possible, and that will help relate categories to each other and to their properties' (Glaser 1967: 49). Accordingly, in this research, the case selection in the first stage case study is guided by the study of Dr. Thompson's research and Mr. Sijmons' method, and this comparative study could also be understood as a follow-up investigation into the positive value categories of landscape architecture as suggested by Dr. Thompson's empirical study.

Once the objectives of the first-stage case study are met, the research will turn its focus from the core landscape theories to Taiwanese landscape practice. The second stage of case study will start and focus on the holistic study of few sample cases. Dr. Thompson's value categories will then be used as a heuristic tool to understand the landscape practice in Taiwan. Since the study purpose shifts, the grounded theory method is not relevant. A grounded theory requires more elaboration on the tentative theoretical construct, yet building a grounded theory is not the goal this research attempts to achieve. Although the 'theoretical sampling' technique dominates the first stage case study of this research, this research remains a case-study research.

The study presented so far only discusses the research background and issues, and the methods used. In the following chapter, a more focused study into literature concerning the core landscape theories will be presented.

4 THE CORE LANDSCAPE THEORIES

4.1 Introduction

Landscape architecture, as a specialised discipline, has developed over a century. Over time, the ideas, which have emerged to improve the landscape, either become accepted concepts or they fade away. Since this research is based on the premise that 'design inevitably involves subjective value judgement' (Lawson, 1997: 126), a study of the ideas/values held by contemporary landscape practitioners in their works could help to identify the core landscape theories. To explore those core ideas would then require an empirical study of contemporary landscape professionals and their work. This chapter presents the first step of such an exploration as a literature study, which will propose the core landscape theories and the possible relation between these core theories and cultural/local landscape theories to be followed up in the next stage of exploration. In this chapter, there will be two discussion focuses i.e. two relevant studies identified in landscape literature. One is the research of a British scholar, Dr. Ian Thompson, while the other concerns the practice of a Dutch landscape architect, Mr. Dirk Sijmons.

This literature will begin with a detailed review of Dr. Thompson's research. In order to understand the motives and considerations of landscape architects when creating landscape projects, Dr. Thompson conducts his research by reviewing literature, interviewing practitioners and then he presents a tripartite framework of positive value sources for landscape architecture, which is known as the E, C & D model (Figure 1). The relevance of Thompson's research to the current study and both the merit and the limitation of his research will all be discussed in the following section. According to the grounded theory method, the empirical study of Dr. Thompson's research provides the categories of core landscape theories, which are based or 'grounded' in real-world

experiences and are suitable to guild the next phase of this research. Although the study focus is on Dr. Thompson's empirical study, the whole spectrum of his research will be reviewed at some length so as to discuss and present his work more clearly and fairly.

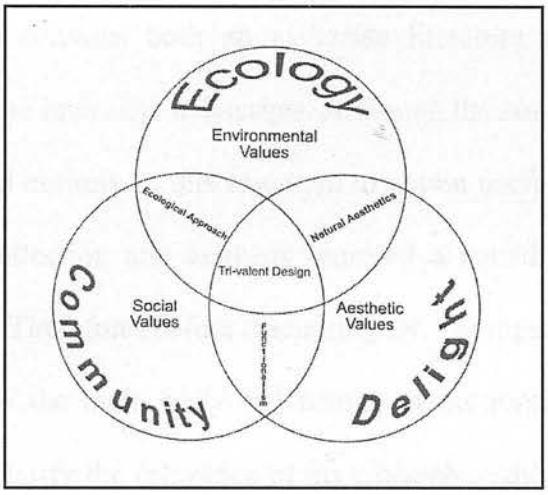

Figure 1 The diagram of landscape value fields (Thompson 2000 c: 7)

The second part of this chapter will discuss Mr. Sijmons' thoughts and practice. As a landscape architect in the Netherlands, Mr. Sijmons has developed a particular landscape planning and design approach, which emphasises the equal importance of three aspects of landscape qualities, i.e. the economic, the aesthetic, the ecological (Sijmons, 1990). Although Mr. Sijmons' landscape approach is generated and applied within a specific cultural/local context, he seems to be aware of the core landscape principles that Dr. Thompson identifies a few years later in his research. Apart from the economic aspect, both Thompson and Sijmons use exactly the same words when referring to the other value aspects of landscape architecture. Since Mr. Sijmons's article focuses on his landscape approach rather than the theoretical principles behind the method, the researcher wanted to conduct an interview with him to obtain more information. The discussion here is therefore based on this interview.

4.2 Dr. Thompson's research and value categories

This section will present a brief introduction of Dr. Thompson's research and an in-depth review of his empirical study in which detailed categories of the core landscape theories are suggested. In order to prove the E, C, & D model, Dr. Thompson's research contains both an elaborate literature review and a careful discourse analysis of the interview transcripts. Although the contents and results of his study were not applied entirely in this research, to obtain useful information to guide the following data collection and analysis required a sound understanding of Dr. Thompson's research. Therefore, before discussing Dr. Thompson's empirical study, it is necessary to review the main body and results of his research as a whole. This review will not only clarify the relevance of his research to the current study but will also indicate the differences between both researches.

The following discussion will be in four parts: a) the overall works of Dr. Thompson's research, b) the merits and limitations of his research results, c) the course and results of Dr. Thompson's empirical study, d) the concepts and details of the value categories classified in this empirical work. All these aspects are discussed in the following subsections.

4.2.1 Dr. Thompson's research and the tripartite framework

Dr. Thompson's research shows a particular concern with the principles inherent in landscape projects. While being aware of an identity crisis within the landscape profession, Dr. Thompson sought to understand the purposes of landscape architecture. As Dr. Thompson (2000a: 1) states, his research 'is concerned with the reasons why landscape architects do what they do, the values that they hold, and the underlying justifications for such values'. Based on his research work, Dr. Thompson (2000b)

published a book, '*Ecology, Community and Delight – sources of values in landscape architecture*', and received the 2001 British Landscape Institute award in the category of community and presentation. The jury's report said, Dr. Thompson's work was not only 'outstanding' but also 'important for a profession which tends to lack a clear public image and sense of direction. It gives a picture of where we are and what our aspirations are.'

At the outset of his research, Dr. Thompson presented a diagram (Figure 1: 59) to hypothesise a broad plurality of values within the landscape architecture profession. Objecting to overemphasising any one single value, Dr. Thompson (2000a: 282) declares, 'there are, however, plural values in landscape architecture and multiple goals'. Being aware of the 'value plurality', Dr. Thompson intuitively maps out the diagram by his reflections upon practice and suggests that 'all of the values within the profession (other than those of professional business probity) belonged to one of three broad fields, the aesthetic, the social and the environmental' (Ibid: 283). To address this in another way, 'the values inherent in landscape architecture could be classified under three headings: aesthetic, social and ecological' (Thompson 2000b: 178) and these three value fields are also expressed with the interchangeable terms of 'Delight, Community and Ecology'. These three value fields are also hypothesised as 'the main sources of positive values in landscape architecture' (Thompson 2000a: 16).

Once the hypothesis was set up, Dr. Thompson then carried out an exhaustive search to mark out these plural values by both theoretical analysis and empirical study. When referring to the way these two directions of the research investigation were conducted, Dr. Thompson (2000a: ii) wrote that 'the first is a conceptual analysis of the value statements which have appeared in theoretical writing…the second part of the study is

empirical, drawing upon interviews.' Although these two parts of the investigation are related, they are distinct studies and have different focuses. The literature investigation, as Dr. Thompson (2000a: 1) states, is 'a conceptual inquiry into the relationship between values within the profession'. He presents a more discursive analysis of the historical and philosophical sources of the values or principles, which are encountered in landscape architectural practice. He notes that 'a historical perspective could seek to explain the origins and development of significant strands of value, while a philosophical perspective would seek to find the ultimate justifications for value positions and would also attempt to relate values from different areas' (Ibid: 17). As to the second phase of Dr. Thompson's research, an empirical study was conducted, which involved interviewing a few experienced British landscape architects. The study purpose was to 'discover what values those in landscape architectural practice actually held' (Ibid: 24). It also served as a testing step to examine 'whether the tripartite framework [E, C, & D model] suggested by theory was applicable to the values discovered in practice' (Ibid: 284).

Although the E, C, & D model was brought out as an intuitive hypothesis, Dr. Thompson's investigation was conducted, not so much as an examination to prove or disprove his E, C, & D model, but is more like an exploration to identify and justify these value fields as the main positive value sources in landscape architecture. Dr. Thompson (2000a: 17) admits that, in the early stage of the research, his aspiration was to seek for 'some overarching value which might bring the disparate triad of aesthetic, social and environmental concerns together, but during the course of the investigation it became clear that this was a mistake'. Inspired by Sir Isaiah Berlin's doctrine of value-pluralism, Dr. Thompson presents the E, C, & D model with three partially overlapping circles to address the main value fields and their relationship.

Through a careful reading of the theoretical texts and in-depth interviewing of empirical practitioners, Dr. Thompson found the E, C, & D model to be broadly sound and accountable. Nevertheless, the claim for the plurality of positive values in landscape architecture seems close to a debilitating relativism, which cannot offer clear guidance for landscape practice. Therefore, Dr. Thompson introduced the idea of univalent, bivalent and trivalent design, which was suggested not only as a normative theory but also as a heuristic tool to assist designers and critics of landscape architectural criticism and debate. Dr. Thompson (Ibid: 283) concludes that 'design which succeeded in addressing all three value fields was richer than design which addressed only one or two'.

Although Dr. Thompson's E, C, & D model gains credibility through both lines of investigation, it still seems not sufficient to suggest the normative principles that he wishes to provide for those who teach or practice in landscape architecture. This is because the desired trivalent design that Dr. Thompson emphasises as the ideal landscaping model is hardly ever found in real-life cases. Thus, he further analyses the discourses classified from his interview transcripts, according to O'Riordan's notion of the technocentric-ecocentric division, to suggest the possible occurrence of a trivalent design. According to Dr. Thompson (Ibid: 287), 'tri-valent design can be practised in a radical, reformist or conservative manner'. The conservative type of trivalent design is also interpreted as a technocentric accommodation. It includes 'the constellation of discourses at the heart of mainstream professional practice, consisting of the Discourses of Accommodation (aesthetic), Amenity (social), and Harmonisation (environmental)' (Ibid, p.287). This type of trivalent design is inclined to accept existing economic and social structures and to depend on professional knowledge and skill to harmonise human activities with natural processes. Another

trivalent design can possibly emerge from the reformist type, which 'adopts a more critical stance towards technical innovation' (Ibid, p.287). The reformist model admits to the deficiency of merely relying on the landscape profession as a technical expert and emphasises that sustainable development has be based upon participatory processes. The notions of 'sustainability', 'participation /consultation' and 'ecological aesthetic' are included in this sort, but it should be noted that the 'ecological aesthetic' is not one of the discourses identified from Dr. Thompson's interview transcripts, as it is not evident or well developed in practice. The last conceivable trivalent design could happen in the radical model, which presents an extreme case to contain the assertions of health/integrity, social change and an attitude of rigorous conservation of nature. As it seems beyond the ability of landscape architects to promote a radical trivalent design, Dr. Thompson (Ibid, p.289) admits that 'for radicals, the profession of landscape architecture is a limited vehicle'. Nevertheless, Dr. Thompson continues to reason and argues that if the sustainability concept is seriously developed and applied, it is still possible to bring up a radical trivalent. When these three kinds of possible trivalent design are suggested, Dr. Thompson (Ibid: 297) concludes that 'these values are all that the profession has to offer' and 'the best landscape architecture...would be found where aesthetic, social and environmental issues were simultaneously addressed'. However, since an actual trivalent design is lacking, these three possible occurrences of a trivalent design are only assumed. The way that the three positive values are applied in a single landscape project remains unclear.

Both Dr. Thompson's research and this research share the same concern about landscape architecture's professional profile and landscape theory's inability to profess what landscape architecture is and what are the key objectives landscape architects should be pursuing. The current study, though, with a similar hope of

refocusing the attitude of landscape architects to their work, is different from Dr. Thompson's research, not only in its research approach but also in terms of the research focus and objectives. Dr. Thompson, with a background as a philosopher and years of work experience in landscape architecture, starts his research from an intuitive hypothesis, according to his own reflections upon practice and he aims to explore and examine his pre-established tripartite framework. In contrast, the current study, while it has no hypothesis to be tested, seeks to understand the shared landscape principles and their applications through an empirical study of landscape projects, particularly to explore the application of these universal theories within a specific cultural/local context, the Taiwanese context. Although Dr. Thompson's E, C, & D model is suggested as a pre-established hypothesis rather than a theory purely grounded in empirical study, it is valid enough to provide the current study with a basis from which core landscape theories can be explored. However, the real merit and potential limitation of E, C, & D model must be discussed before the theory that this model suggests is employed for the following exploration of this research. This discussion will be presented in the next section.

4.2.2 The merits and limitations of Dr. Thompson' research

In Dr. Thompson's research, the E, C, & D model is first presented as a hypothesis to suggest that 'the diversity of values inherent in the practice of landscape architecture could be understood within a framework consisting of three partially overlapping value fields' (Thompson 2000a: 201). Yet, while his research seeks to verify and explore this hypothesis, Dr. Thompson also intends to suggest some normative theory from his research findings. Therefore, the models of univalent, bivalent and trivalent design are suggested according to the tripartite diagram.

When introducing the univalent, bivalent and trivalent concept, Dr. Thompson (2000a: 19) refers to the overlapping segments in the diagram of the E, C, & D model and explains that 'the additive nature of the over-lapping value systems should be clear from these diagrams [segments]. Any project may succeed in creating value in one, two or all three areas. Conversely, a scheme may have great merit when judged on its artistic merits but may make no contribution whatsoever to social welfare or to ecological sustainability'. Dr. Thompson then continues to suggest that such a conceptual analysis of a landscape project against the E, C, & D model not only provides a framework for landscape criticism but also 'has a normative force in that in general, landscape practitioners should be seeking to maximise positive values in their work' (Ibid). The segments where value fields converge in the tripartite diagram are used to represent the three kinds of design models; and varied landscape approaches, such as ecological approach and functionalism, are fitted into these segments of the framework respectively, to represent the normative guidance offered for landscape practice. As such, the E, C, & D model, while it aims to present the core landscape theories and their relations, is applied as a diagram to address a normative theory for landscape practice.

As Cassidy (2000: 267) comments, Dr. Thompson's use of his E, C, & D model may attract critics to argue that 'the concept of tri-valent design is an oversimplification, a gross reduction of the complexities which attend the process of design and realization, and the other, equally important, value systems are ignored'. Although Cassidy regards such criticisms as misunderstanding the real worth of Dr. Thompson's work, it is indeed misleading when Dr. Thompson introduces the ideas of univalent, bivalent and trivalent design. After all, the univalent, bivalent and trivalent concepts are abstract ideas without eloquent empirical examples. In addition, as Dr. Thompson's

empirical study reveals, 'examples of good tri-valent design are harder to come by' (Thompson 2000a: 285). Consequently, the idea of maximising all the three value fields becomes an ideal without explicit examples. This could be the reason that Dr. Thompson further discusses the possible occurrences of a trivalent design. Since his research is to explore why, rather than how, landscape architects create their design works, his research, by its very nature, is more valid in terms of presenting the positive value fields of landscape architecture than suggesting the way a tri-valent design could be achieved.

Apart from presenting a normative theory, the E, C, & D model is also suggested as a heuristic tool for landscape criticism. Based upon the E, C, & D model, Dr. Thompson (2000a: 203) introduces a sort of bar chart (Figure 2) to 'evaluate approaches to particular projects or the outcomes of design interventions'. The chart presents no vertical scale except an abstract concept about high or low levels of expression, consideration or application with regard to the three value fields. As Dr. Thompson explains, this is because 'there is no common scale against which these values can be measured' (Ibid).

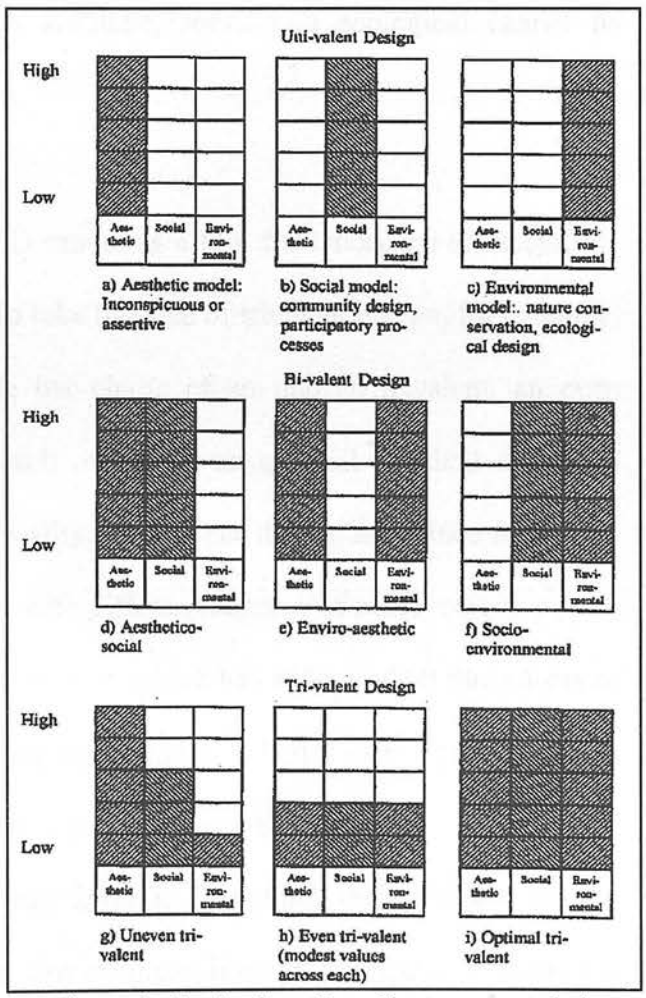

Figure 2 Evaluation Bar Chart suggested by Thompson (Thompson 2000 c: 179)

Although making critical comparisons between projects is not prevented by the lack of a common measurement, as Dr. Thompson comments, there is still a restriction on such criticism as the three values are incommensurable. The notion of 'value incommensurable' is a crucial insight gained from Berlin's doctrine of value-pluralism, which recognises the nature of the internal and interrelated complexity within each value and among all of them. Accordingly, Dr. Thompson admits that although different values 'may overlap to a greater or lesser extent there is always the possibility that values from different cultures will be found to be incommensurable' (Ibid: 18). That is to say, since the plural values have so little in common, it is not possible to rank one against the other. Thus, Dr. Thompson (Ibid: 203) states that 'the values which have been described as aesthetic, social and ecological cannot be weighed against one another'.

Accordingly, when using the E, C, & D model as a tool for landscape criticism, the user must be aware of its limitations. To take the idea of trivalent design, for example, Dr. Thompson presents three possible bar charts of an uneven trivalent, an even trivalent with modest values across each other and an optimal trivalent design to explain what may actually happen in reality. A problem then arises, since it appears extremely difficult to compare projects with different degrees of achievement at each value field. It is impossible to say that a project, which has addressed all three areas of value but fallen well short of maximising any of them, is better than a project, which has been successful at one value field but which has not addressed any of the issues of the other value fields at all (Thompson 2000a). Therefore, the criticism is only meaningful when it is properly applied. For example, it could be used to evaluate the level of each value field revealed within a project or to discuss the pattern of emphasis on each value field across different projects.

As the discussion has presented so far, the tripartite framework has limitations in its use, either as a normative force for landscape architects to pursue an optimal trivalent design or as a heuristic tool for landscape criticism. Yet, this is not to say that the framework is inapplicable. On the contrary, when its limitations are taken into consideration, the tripartite framework not only can be used as a tool to understand the landscape practice in different contexts but also provides a basis to explore further the applications of the core landscape theories in various cases. Therefore, while the E, C, & D model has its limits, the merit of Dr. Thompson's research and its contribution to knowledge should not be underestimated. According to Cassidy (2000: 267), the abbreviation of the design process to a simple thesis presented by the E, C, & D model is 'an appropriate and manageable method of focusing attention, from a number of perspectives, upon the fact that the actions and decisions of landscape designers are inherently value-laden'. In other words, Dr. Thompson's research aptly classifies the diverse landscape theories into a few representative categories. These broad and inclusive value categories are further classified into sub-categories, according to the discourses analysis in his empirical study. Since these sub-categories are identified from interview transcripts, Dr. Thompson's empirical study should also be discussed. The next section will present this discussion.

4.2.3 Thompson's empirical study

As Dr. Thompson is aware that 'what has been written about values in the literature might, however, bear little relation to the profession as practised' (Thompson 2000a: 2), he carried out an investigation into real-world situations. His research, therefore, comprises not only a close reading of theoretical texts but also the empirical study of values in practice. Dr. Thompson conducted his empirical study by in-depth interview with twenty-six British landscape architects. From the analysis of the transcripts of

these interviews, he aimed to identify a number of themes or 'discourses' concerned with values. According to Dr. Thompson (Ibid: 285), 'all but two of the discourses identified from the interviews fitted readily into the aesthetic-social-environmental schema'. The exceptions, though they do not refer to the three-value fields directly, are still regarded as relevant to the E, C, & D model. Dr. Thompson is therefore confident that the E, C, & D model is applicable to the values discovered in practice.

He selected a qualitative method, an interview, to approach contemporary landscape practitioners and obtain information about their beliefs and motivations in conducting landscape projects. The interview method is considered appropriate for this empirical study because it helps to explore deeper issues and is flexible enough for investigation without predetermined boundaries. As Dr. Thompson's empirical study aims to 'get to know a variety of practitioners and to encourage them to reveal their value systems' (Thompson 2000a: 25), the investigation was open to a wide range of attitudes and answers which were expected to provide deeper insights, rather than showing statistical relevance. Instead of following any rule for statistically reliable sampling, he carefully selected interviewees from a geographical spread for his potential sample. According to Dr. Thompson (Ibid: 26), 'in sampling for range, one is unlikely to miss minority or marginal points of view, which can be a problem in forms of sampling which strive for statistical reliability'. To decide the criteria for 'range', Dr. Thompson considered not only the geographical location of the interviewees' respective practice but also the sector in which the interviewees were employed. In addition, although not always known in advance, the interviewees' previous background and education were also taken into account to show the diversity of the sample.

His interviews show a wide range and diversity of sampling. In terms of geographical spread, the sample covers a considerable extent of Britain, including London, Oxfordshire, Manchester, Liverpool, Northeast England and Central Scotland; and as many of the interviewees had moved around the country, the geographical range of the sample was, in fact, more extensive. As to the employment sectors, potential subjects were selected with respect to three main categories, i.e. public authorities, private consultants and voluntary organisations. Although the sample is restricted to British landscape architects alone, it shows a careful selection to embrace as much diversity as possible. Moreover, care was taken not only about the 'range' of the sample but also the 'qualification' of the interviewees. Accordingly, potential interviewees had to be experienced landscape practitioners with at least ten years practice in the field. Dr. Thompson (2000a: 25) states that 'such people...would have had the experience to develop their own sense of priorities rather than being under the sway of their former teachers or first employers. Their beliefs and opinions would not therefore be received wisdom, but would have been tested in the crucible of practice'. Thus, the practitioners who were heavily involved in landscape education are deliberately avoided so as not to bring in ideas of academic theory but to focus solely on the reality of practice. The selection of interviewees, as Dr. Thompson (2000a: 29) states, is 'on the basis of recommendations and reputation, with preference being given to reflective practitioners who were able to communicate their points of view, whatever their perceived status in the profession'.

Once the potential interviewees were selected, Dr. Thompson contacted the subjects by letter, explaining the purpose of his research and he gave some idea of the questions he might ask. The interviews were conducted through a guided conversation about the underlying values of landscape architecture. As Dr. Thompson (2000a: 30)

notes, 'direct questions about values were not asked in the earlier stages of the interviews'. Instead of directly posing specific questions, the interview was guided from some general questions to a discussion about the reasons why the interviewees had chosen to become landscape architects, and then it was moved on to discuss their greatest sources of satisfaction and dissatisfaction, the kinds of work or landscape designer that they most admired and so on. By asking the interviewees about their favourite landscape project or landscape designer, he gently induced the interviewees to talk about their opinions on the positive values of landscape architecture. Although some questions, stated in the interview guide (see Appendix 2 of Dr. Thompson's thesis), may have particular concerns about the three value fields of the tripartite framework, the interview guide is not partially designed and some open-ended questions do leave room for other positive values to be discussed. Dr. Thompson was cautious with his interview questions and he was confident that 'the investigation was open to the discussion of value concepts, which lay outside of the hypothesised tripartite framework' (Ibid).

As to the method used for analysing the interview transcripts, it is referred to as a 'discourse analysis' (Thompson 2000a: 25). Dr. Thompson used a computer programme of NUD.IST (Non-numerical, Unstructured Data – Indexing, Searching and Theory-Building) to help sort the contents of the interview transcripts that were first tape-recorded and later transcribed into text. Making use of a computer programme may facilitate the process of analysis but does not guarantee the technique is utterly objective. As it is stated, 'a degree of subjectivity is inevitable in the use of NUD.IST as the researcher is required to interrogate the database' (Ibid: 31). Therefore, Dr. Thompson uses the E, C, & D model as the starting point for the NUD.IST software to examine the whole database. While admitting the unavoidable

subjectivity within the analysis, Dr. Thompson also stresses that 'the researcher [Dr. Thompson] remained open throughout to the identification of values which might lay outside this framework'. The analysis, as he continues to describe, is quite an iterative process, which aims to identify different themes or discourses from the text. The data is organised not only according to the value it contains but also with regard to the level of consideration, which he refers to as primary, secondary or rejected values. When the coding was done, he then sorted each group against the value fields of the tripartite framework. A total of thirteen discourses were presented and named, according to the theme of each sorted group. There are five discourses under the aesthetic value field, while each of the social and ecological value fields accommodates three discourses respectively. Only two discourses are identified as not readily fitting into the tripartite framework. According to Dr. Thompson, one exception, the discourse of historical continuity, straddles the aesthetic and social realms, and the other, the discourse of scale, is a neutral idea, which could be used as a kind of quantifier on other values.

Dr. Thompson's empirical study was centred on the identification of positive values held by landscape architects. Therefore, this discourses analysis tends to focus only upon sorting and annotating the interview transcripts. The next step in the analysis is to allocate the identified discourses in the E, C, & D model rather than to discuss the way they are applied in landscape projects or to understand their interrelations to one another. After all, the purpose of the discourses analysis was to test the validity of the E, C, & D model in the empirical world. Therefore, while many interviewees reveal their values in referring to landscape works, the interview only follows up these ideas in regard to why they are important rather than how they are achieved. Nevertheless, the analysis results do provide enough evidence to support the hypothesis that the E,

C, & D model had suggested. Since the research aim was achieved, other issues concerning the discourses were left unspoken. For example, the inherent contradictions or consensuses between different discourses were not discussed. Thus, questions such as 'how can different values be adopted within a single landscape project?' or 'will the same landscape project accommodate discourses that have contradicting stands?' remain unanswered.

The empirical study also suggests that contemporary practice might not provide his ideal model of a good tri-valent design because 'in the course of interviews only one project was described which could be said to have been shaped by consideration of all three value areas' (Thompson 2000a: 285). In addition, this project was, unfortunately, not realised in reality due to the failure of a funding bid. The identified discourses were then further classified in an attempt to discuss a possible tri-valent design. However, as was discussed earlier, this part of the discussion is not based on empirical evidence because the identified discourses are only analysed according to their difference rather than their application. Therefore, while it is reasonable to think a tri-valent design can happen in a radical, reformist, or conservative manner, it is not impossible for discourses with contradictory stances to co-exist in the same project. Nevertheless, the analysis that Dr. Thompson conducts in his empirical study is still fruitful, in the sense that the diversity of ideas revealed by landscape architects was differentiated and classified under the three universal landscape principles. Dr. Thompson successfully demonstrated that there are plural values in landscape practice and all these ideas can be referred to within three main categories: aesthetic, social and ecological. These discourses, while representing different opinions of landscape architects, are useful information that helps to understand the landscape practice in different contexts and thus will be reviewed as follows.

4.2.4 The value categories

In a conference paper on landscape education, Dr. Thompson (2000c: 96) refers to his empirical study and states that 'most of the value statements identified in the transcripts could easily be classified within the tripartite structure...lending support for the framework as a conceptual device and as a tool for landscape architectural teaching and criticism'. He uses ten of the thirteen identified discourses to present his analysis result. Although the discussion may be regarded as a selective presentation, Dr. Thompson's intention is probably to avoid those discourses that are less robust and ambiguous rather than to mislead the reader. These ten published discourses are therefore regarded as representative and will be used in this research to identify different value statements in the sample cases and to further discuss landscape practice in Taiwan. However, in order to give a complete picture of the identified discourses, all these discourses will be discussed in this section. The ten representative discourses will be presented under the three main value category headings, while the other three are discussed in the later part. Two of the discourses are referred to as a 'minor discourse', so-called when 'a theme played a significant part in the value system of a minority of subjects, but was not well represented in the study group as a whole' (Thompson, 2000a: 33). This will be noted later when these two discourses are introduced.

Aesthetic discourses

Five discourses were identified by Dr. Thompson under the aesthetic category but one provides no distinct statement. Therefore, he presents only four clear themes, with little mention about the one excluded from his paper. Dr. Thompson (2000c: 96) arranged the four discourses along a continuum with 'approaches that place maximum value upon "unspoilt nature" at one end and approaches which sanction the

manipulation of nature in the interests of either utilitarian social needs or artistic expression, at the other'. Although some discourses may contain similar ideas revealed in the other value categories, these themes are classified as aesthetic discourses because their main concern is about beauty. These aesthetic discourses address different ideas and principles of landscape architects when they come to recognise and create beautiful landscape. Theses four discourses are as follows:

a) Conservation: Many landscape architects treasure the beauty of nature and think that once the characteristics of natural scenery are lost, it is unlikely that the aesthetic quality of the undamaged landscape can be re-created or recaptured. As such, some practitioners think that their job is to identify and protect areas perceived to have aesthetic values. Here, the main interest of landscape architects is 'in conserving the scenic qualities and cultural meanings of semi-natural, humanized landscapes' (Thompson 2000a: 213).

b) Improvement: While some landscape architects express their admiration for unspoilt natural scenery, many others believe that natural beauty can be improved. This discourse shows that 'the eighteenth century idea of the landscape gardener as someone who improves views persists in the modern profession' (Thompson 2000c: 96). However, the intervention of landscape architects on the land is not egotistical as it is stressed that 'such practice works with, rather than against, nature to get its results' (Thompson 2000a: 216).

c) Accommodation: This discourse is also related to the concept of visual improvement. Nevertheless, its emphasis is on 'containing or accommodating man-made elements, which are regarded as potentially detrimental to scenic

qualities' (Thompson 2000a: 217). Many landscape architects believe that their designs should be self-effacing or seamlessly fit in with the surrounding landscape. As the theme of this discourse is about harmonising visually disharmonious elements, Dr. Thompson (Ibid: 226) notes that 'The Discourse of Accommodation is the aesthetic equivalent of the Discourse of Harmonisation (see below) which describes a parallel environmental discourse'.

d) Artistic Expression: Many interviewees share the belief of Geoffrey Jellicoe that 'landscape architecture has at least the potential to be one of the great arts' (Thompson 2000c: 97). However, there exists a tension between landscape architecture as a service profession and as an artistic pursuit. Instead of pursuing artwork, Dr. Thompson (2000a: 233) found that 'for those who do see a role for artistic expression, the place of symbolism in landscape design is important'. Some interviewees revealed that 'they rest upon quite complex intellectual ideas elaborated during the design process' (Ibid: 235).

Social discourses

In the social category, three discourses were identified. Ideas classified as social discourses share the same concern of landscape architects about users' need. Dr. Thompson (2000c: 98) states that 'underlying all three [social discourses] was a utilitarian striving for the greatest good of the greatest number'. While most landscape architects express their concerns to serve the needs of the eventual users of their works, their approaches to fulfil user need are varied. The social discourses are sorted according to the differences of these approaches. Three distinct concepts, as different approaches towards user need, are identified and presented below. These will be discussed in turn, from the mainstream concept shared by the majority of the

interviewees to the less mentioned idea. The last one to be introduced here, The Discourse of Social Change, is one of the minor discourses.

a) Amenity: It is generally thought that landscape architecture has something to do with improving the quality of people's lives. Although this is quite a vague notion, several interviewees do believe that 'by improving people's surroundings, one can make their lives better' (Thompson 2000a: 249). Some interviewees also express that, to provide humanised places that give pleasure or maintain amenity is their responsibility. Many landscape architects would seem to imagine themselves as the users of the proposed project to understand users' needs. Dr. Thompson (2000c: 98) notes that, 'most practitioners believed that the ability to empathise with the users of a landscape was an important professional skill'.

b) Consultation / Participation: As the empathetic understanding of the users' needs has its limitations, some practitioners 'sought to involve the landscape users in a more participatory approach to design' (Ibid). Some forms of consultation such as a questionnaire, community forum or public meeting, are methods used by landscape architects to gather information about users' needs. This discourse shows the growing awareness within the profession that 'at least for some types of commission, artistic flair, technical expertise and an empathetic attitude towards end-users are not enough' (Thompson 2000a: 256).

c) Social Change: 'A minority of people interviewed thought that their role went beyond the technical in that they saw themselves as agents of social change' (Thompson 2000c: 98). While those who share the concept of 'amenity' are connected with 'technicians' and those who talk about 'participation' are referred

to as 'community workers', the interviewees who raise the voice of 'social change' are thought to be more like 'politicians'. However, this is a minor discourse as fewer practitioners express their eagerness to redress social inequalities. Dr. Thompson (Ibid: 99) states that 'only two of the twenty-six interviewees could be said to have translated their professional concerns into political engagement'.

Environmental discourses

There are three discourses in the environmental category. Dr. Thompson examines these concepts, according to the homocentric-ecocentric division found in environmental ethics. He found that most landscape architects express their environmental concerns as '"homocentrists" who believed in the stewardship of nature for human use and enjoyment and "technocentric accommodators", who put their faith in the adaptability of institutions and the effectiveness of environmental assessment to accommodate environmental demands' (2000a: 270). None of the three discourses reveals strong ideas based on the pure ecocentric stance, although, one addresses the concern about the 'health' of the ecosystem. Nevertheless, the concept closest to an ecocentric point is a minor discourse. All these environmental discourses are as follows:

a) Harmonisation: The discourse of harmonisation is a dominant concept revealed by the interviewees and is closely related to the aesthetic discourse of accommodation. 'This discourse suggests that while the interest of the human species and those of the rest of nature may not be identical, they can, nevertheless, be reconciled' (Thompson 2000a: 272). Many landscape architects think that it is their task to bring about this harmonisation. The concern here is environmental

rather than visual or aesthetic. However, since the stance of this concept is anthropocentric, some critics may argue that 'environmental concerns fare badly when they face competition from other anthropocentric concerns' (Thompson 2000c: 100).

b) Sustainability: While 'sustainability' is a word with many interpretations, the central idea revealed here is about the concepts of 'continuance' and 'support'. 'It is a commonplace among landscape architects that their discipline is concerned not only with design in three dimensions but also has a temporal dimension' (Thompson 2000a: 274). For landscape architects, the concept of sustainability could also be connected with the idea that good design will be enduring.

c) Health / Integrity: 'Only one of the landscape architects interviewed adopted a position which placed primary value upon ecosystem health or integrity' (Thompson 2000c: 101). The concept of health/integrity is therefore regarded as a minor discourse. However, it is also noticed that 'many practitioners saw themselves as healers of damaged landscapes. A powerful medical metaphor underlies much landscape work, particularly reclamation projects' (Ibid).

The less-distinct discourses

So far, the ten published discourses have been introduced. Other ideas that are not so distinct or strongly emphasised have also been identified. Three of those discourses are presented here. While one of them is identified as an aesthetic discourse, the others cannot be fitted readily in to the aesthetic-social-environmental classification. Although Dr. Thompson did not talk much about these discourses, the main concept had been pointed out and these will be introduced as follows.

a) 'Good Design': The idea of this discourse is raised as an opposite opinion against the concept revealed in the discourse of artistic expression. As Dr. Thompson (2000c: 98) notes, 'others [some interviewees] oppose artistic values with the value of "good design"'. Although landscape architects value 'good design' more than 'art work', the interviewees provide no evident ideas concerning the conditions or criteria for 'good design'. Nevertheless, Dr. Thompson still finds some consensus within different opinions. He states that 'good design, it seems, can be recognized in three ways: skill in manipulating spatial characteristics; the ability to meet the functional needs of a brief; and skill in construction detailing' (2000a: 237). However, 'good design' is still quite a broad and ill-defined concept and it is not necessarily referred to as aesthetics.

b) Scale: 'In the Discourse of Scale, practitioners demonstrated that they valued interventions which had been far-reaching in their consequences or had produced manifest improvements across a large area of land' (Thompson 2000a: 34). The idea of getting greater or more effect on the land is more like a sort of economic pursuit, which seeks for a maximum investment return. Although this concept may have a part to play in the social value field, Dr. Thompson regards 'scale' as a neutral idea to be used as a quantifier upon other values; and he states that 'landscape architects placed value upon the scale of their interventions as a measure of professional effectiveness'(Ibid).

c) Historical Continuity: The theme of this discourse, as Dr. Thompson comments, is more elusive. The emerged concept shows the practitioners' concern for the pre-existent characteristics of the sites they work on. However, the opinions of the interviewees are discordant. While some landscape architects talk about the need

to respect '*genius loci*', others refer to local identity and community. 'Historical Continuity therefore seems to be a matter of both aesthetics and of community' (Thompson 2000a: 35). Dr. Thompson then reclassified the statements related to 'Historical Continuity' into aesthetic and social categories instead of presenting this concept as a distinct discourse.

So far, Dr. Thompson's research has been discussed and the content of his empirical study, in particular, has been presented in detail. This review indicates that the use of Dr. Thompson's E, C, & D model, either as a normative theory, or as a heuristic tool has its potential limitations. The discussion on the limitations of the E, C, & D model is not to diminish its value but to admonish against any careless application of the framework, and at the same time, to refocus on the merit of Dr. Thompson's research as it narrows down the broad landscape theories into three universal categories. Moreover, in his empirical study, more sub-categories, i.e. the value discourses, are identified under each of these main value fields. With Dr. Thompson's research findings, the core landscape theories are getting clearer. Yet, there are still uncertainties in regard to the universality and applications of these landscape values. Therefore, while this research trusts and respects the results of Thompson's research, the researcher still wishes question the universality of the core landscape values and the role of cultural/local landscape theories to the universal landscape principles. However, before these value categories are further studied within a cultural/local context, another relevant landscape approach, that of Mr. Sijmons should also be reviewed to continue discussing the three core landscape theories in more depth.

4.3 Mr. D. Sijmons' landscape approach

As was discussed in the previous chapter, a particular landscape approach presented by the Dutch landscape architect, Mr. Dirk Sijmons, was found relevant to this research, as his method emphasises the equal importance of the economic, aesthetic, and ecological qualities of a landscape project. Therefore, an interview was conducted to learn more about Mr. Sijmons' approach and the theories behind it. This section will present the interesting information found in this interview.

4.3.1 Regional planning as a strategy

In the article 'Regional planning as a strategy' (Sijmons, 1990), Mr. Sijmons presents a spatial planning method as a remedy for the failure of previous guidance policies for landscape planning in the Netherlands. He suggests a new planning strategy should take place at a regional level. Mr. Sijmons (Ibid: 272) states that at a regional level 'complete landscape units can be taken into account; nature development can be analysed at the level of interrelated ecosystems; major ecological and hydrological units can be discerned; drainage patterns can be delineated'. Therefore, he believes this strategic planning method is most effective when applied at a regional level. The emphasis on a regional perspective seems much related to an environmental concern. Yet, apart from the prerequisite of the project scale, there are also some conditions that should be met for this new planning strategy to deliver the desired results. Among the somewhat lengthy requirements, the first is stated as: 'The search for new quality in the landscape must be based on regional plans that pay equal attention to the economic, the ecological, and the aesthetic aspects' (Ibid: 272). While other requirements are more about specific strategies regarding the factors of 'time' and 'uncertainty' of the landscape change process, Mr. Sijmons (Ibid: 273) also mentions

the connection of design works with the planning principles that 'Design proposals at the regional level will have to comply with criteria set by long term management and control'. Although in this article, Mr. Sijmons only reveals a concern for the three landscape values and his method seems more related to landscape planning than landscape design, his statement concerning the three quality aspects is still relevant to this research. Without sufficient information, an interview is therefore necessary for Mr. Sijmons to express his ideas of the three landscape qualities more clearly. Moreover, since Mr. Sijmons' landscape approach is suggested as applicable at a regional scale, his understanding of the roles of both planning and design in this approach should also be clarified.

According to Mr. Sijmons' article, his landscape approach is presented as a strategic planning method that is supposed to take place at the regional level of scale; yet when he mentions the equal importance of the three aspects of landscape quality, it seems that he is talking about the overall quality of a landscape project, rather than merely referring to landscape planning aspects or detail designs. Therefore, a question arises, asking what Mr. Sijmons' idea is regarding the relation between landscape planning and landscape design in his method. Mr. Sijmons answers:

'Of course, there are lots of relationships between the role of landscape architect in the regional setting and the landscape architecture in the designing, well…let's say, the concrete projects. On the regional scale, you can say that in a lot of cases, you have political clients, and you are very much in the first part of the processes of both you are making that will end up in the concrete projects… So, our point of view is that: Also, on the regional scale, you can make design or there is a role for the designing process. It is not a sort of an extra planning approach. There is a way in which the designing process itself can be very useful as a tool for future research'

(Interview transcript). As the researcher understands, Mr. Sijmons' expression is to suggest that landscape planning and landscape design can be regarded as a whole process, according to his planning method, and Mr. Sijmons agrees with this interpretation. However, he also admits that 'sometimes the process is cut up in very definite little steps. Sometimes, we only do the first part of the process and sometimes you continue it and you finish it in the concrete designs' (Interview transcript).

Then, Mr. Sijmons uses an example to show how his planning strategy involves both a planning and design process. The project that Mr. Sijmons takes is a river dyke enhancement work (see Figure 3). Although Mr. Sijmons did not mention too much background of the project, he pointed out that this project was initiated because the old river dyke was not strong enough to keep the water out. However, there were several objections to the idea of making a higher and greater dyke to replace the original one. Therefore, Mr. Sijmons was commissioned to propose the plan for the river dyke enhancement. To confront the main objection, which insisted that the idea of making a higher dyke would destroy the river landscape, Mr. Sijmons proposes a new dyke profile in a sort of design plan (see Figure 4 and Figure 5).

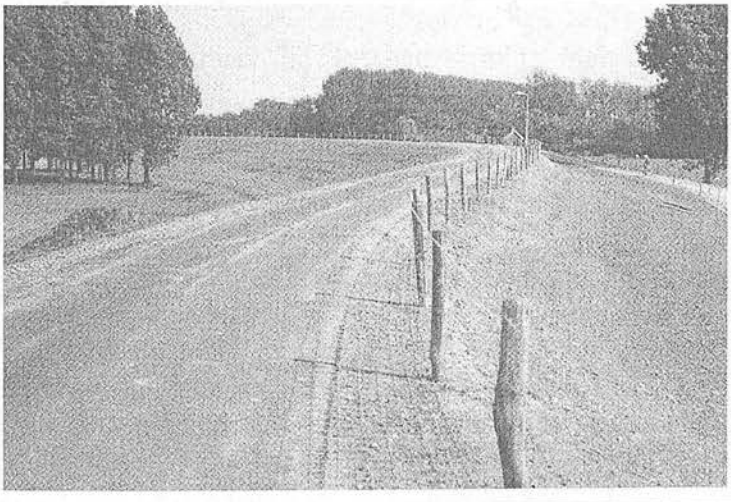

Figure 3: A picture of the completed river dike enhancement project that Mr. Sijmons mentions (Sijmons 1998: 46). The river dyke is designed in a naturalised form and looks as if it is a part of the natural scenery.

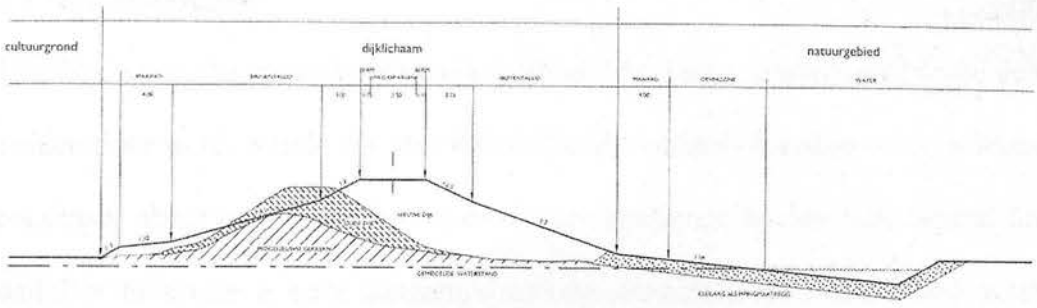

Figure 4: Presenting the plan through a design process (Sijmons 1998: 45)

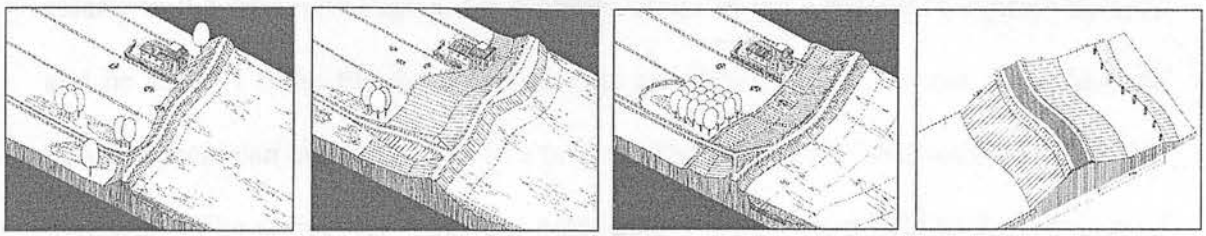

Figure 5: The relation of the new dyke and the previous one (Sijmons 1998: 47)

As Sijmons discusses, the proposal of the project was to make the new dyke upon the old one and make it with a sort of gentle and natural form. In this way, 'people who walk on the dyke or bike on the dykes are feeling that they are hovering on the landscape' (Sijmons, Interview transcript). 'This is sort of an example where the thinking on the regional or national scale is our first commission and then at the end that we can really go into the detail and make a real design of it' (Ibid). This case simply demonstrates the way Mr. Sijmons makes landscape design while he engages in a landscape planning process. Since planning and design are not so much separated as different phases of the same project in Mr. Sijmons method, it is evident that his emphasis on all three landscape qualities, as he agrees in the interview, takes both landscape planning and landscape design into account. Once this was clarified, the researcher continued to ask Mr. Sijmons about his idea of making quality landscape, which will be discussed in the following section.

4.3.2 New coherence?

When discussing the strategic planning method, Mr. Sijmons mentioned some general considerations in his article. He stated that: 'A new course of action must be based on a consensus about quality requirements. Future landscape quality will depend on the possibility to create a new coherence among economic, ecological and aesthetic qualities' (Sijmons, 1990: 270). Since the meaning of this new coherence is not explained in this article, the researcher asked Mr. Sijmons to talk about this idea more clearly in the interview. Again, Mr. Sijmons chose to use a project to express his idea and he says, 'I think the three components and how you think about the coherence between them can only be shown in a project. Then it loses its abstractions' (Interview transcript). The project for sands and pebble stones excavation field in the province of North-Brabant (Figure 6) is thus introduced as an example to express the coherence that Mr. Sijmons means.

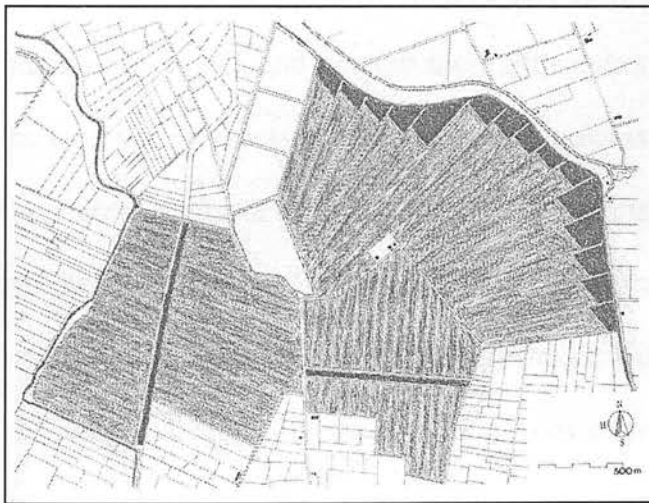

Figure 6: The master plan of the project of sands and pebble stones excavation field in the North-Brabant of the Netherlands (Sijmons 1998: 97). Mr. Sijmons regards this case as a good demonstration of the way all the three aspects of landscape qualities are expressed.

As Sijmons describes, in the province of the Brabant, 'they [the local authority] had made a sort of a policy document about the ecological main structure of the province; and they said in the most important areas of the province, there is no commercial digging of sand and pebble stones' (Ibid). It then seems that there is no place for sand

excavation in the entire province. However, since sand and pebble stones are important materials used in the building industry in Holland, the sand and pebble stones excavation firms were asking for a way of excavation that could be accepted to take place in the North-Brabant province. This is how the project was initiated. The three landscape qualities are all taken into account in this project as he describes:

'The economy part, that the first E, is the digging of sands. The second E, the ecology, is: how are you going to dig for sands in a way that resorts in the beautiful and natural areas. What we did was: we said that you could make a smaller-scale excavation of sands. Making sort of separations of the areas and leaving little dykes in between the excavation holes...make them sort of in a linear way. Because, and that's the third E, the esthetics [Aesthetics]...the placer deposition has different directions, we said: well, we use the same direction as the placer deposition of the landscape has now and, if you have excavated the sands in, let's say, these directions [the different directions of the three sections], and you left these little dykes, and then after a while you will see the factor, time, reacts, and the ecological process reacts in a very different way on the three areas we have created...So, in this area [the middle section of the plan], there will be erosion on the bottom; and in this part [the east section of the plan], there will be sedimentation at the end of the little lakes; but in this part [the west section of the plan], the dykes are like these on the winds so you will see these dykes will break in the end...The end of the story is that the random process of the winds and erosions and sedimentations will change this basic pattern what you lay down in a very beautiful and not designed way. (See Figure 7)' (Interview transcript)

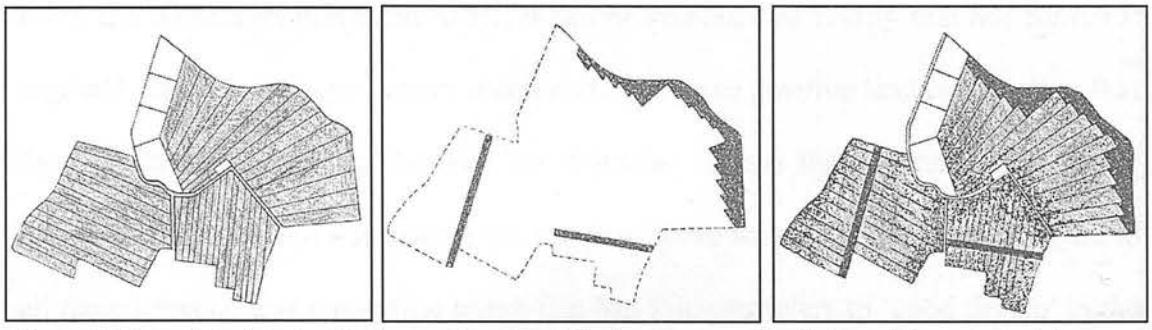

Figure 7: The original design for the sands and pebble stones excavation field and the expected change

According to Mr. Sijmons' description, all three aspects of landscape quality do have their part to play in this project and must be addressed. However, since this project was not realised, it is difficult to see how these qualities were actually achieved. Yet, this case shows that Mr. Sijmons' idea, regarding the new coherence among the three quality aspects, is simply about taking all these aspects into account, which is related to his emphasis on the equal importance of these quality aspects. As to the reason why this project could not be realised, as Mr. Sijmons explains, it was because people of different sectors, or say with different land-use functions, had difficulties in working together. Therefore, Mr. Sijmons refers to 'the possibility' to create this coherence rather than making it a strict demand, and when interviewed, he also admitted that there could be certain conflicts among these three qualities. However, according to Mr. Sijmons, the conflicts are not so much about the internal contentions between the different values but the external forces of a project. As Mr. Sijmons says, 'There is a way of making politics that is very much trying to set these qualities apart and oppose them to each other. Sometimes they are opposed and this conflict must be solved...These three forces, in a good design, when they conflict with each other, can be integrated in most cases, into a whole integrated design' (Interview transcript). Whether the conflict is internal or external, Mr. Sijmons stresses that the conflict has to be solved and none of the three qualities is less important than the others.

From the discussion presented so far, it can be summarised briefly that Mr. Sijmons' regional planning strategy is very much about the three positive landscape values that Dr. Thompson identified. The way Mr. Sijmons' creates the coherence among the three quality aspects of a landscape project is to strive for equal attention to be paid to all these aspects. It is interesting to see that Mr. Sijmons refers to 'good design' in the interview when asked about the potential conflicts between concerns for different landscape qualities. He says that a good design will find ways to integrate different requirements of the three quality aspects. Although he did not explain how this integration can be achieved, he emphasises again that all three quality aspects are equally important and none should be disregarded. Therefore, the follow-up question is about the meaning and the way of paying equal attention to these aspects. To answer this question, Mr. Sijmons simply says:

'You should realise that it's not about only optimising the economic side of the project; it's not about only optimising the ecological side of the project; it's not only about making something very beautiful, the only aesthetic kind of the project. Quality comes about when there is a sort of a very nice combination between the three. And to do that you have to pay equal attention to all three but, well, you know, as a designer as I do, it's a very mysterious and tricky process that is worked in different sketches and angles. It's not a recipe for you or anybody else but it was a recipe for, let's say, landscape policy on a national level' (Interview transcript).

Since the way of making a nice combination of the three value considerations is regarded as a mysterious process, Mr. Sijmons turns the discussion into the reason he stresses that three of the quality aspects deserve equal attention. Mr. Sijmons continues:

'...When I wrote this article I was worked with the state forest service and we were asked to lay a foundation for new landscape policy. On the policy level, it is very important to state that all three qualities will be given equal attention. Because in Holland, in the 50s and 60s, there was only attention for the economic side of development, no attention was given to the ecological side and no attention or little attention was paid to the aesthetic side of the problems. That's where it comes from' (Interview transcript).

Accordingly, Mr. Sijmons' landscape approach is generated as a specific cultural/local landscape theory, which reflects the conditions of landscape practice in the Netherlands. It is therefore not surprising that Mr. Sijmons introduces his landscape approach as a sort of remedy. Yet, this Dutch experience also shows that in practice, especially in terms of the past experience, not all three positive landscape values are taken into account in the same project. This then seems to suggest that it could still work if the design emphases are only placed on one or two value considerations. However, while Mr. Sijmons agrees the design results can still be good without all the quality aspects being addressed, he regards those cases as exceptions, because he believes that the three quality aspects cannot be completely ignored in landscape works. Yet, Mr. Sijmons also admits that sometimes, it is possible to put less emphasis on one or two of these quality aspects. To take garden design, for instance, he reasons: 'When you make a garden and [could] ignore the economic side; but on the other hand, if you ignore it completely, your client wouldn't be able to pay for your garden design ...so, to completely ignore you can't' (Interview transcript). Therefore, Mr. Sijmons' idea about paying equal attention to all three quality aspects can be understood as not overlooking any of these three values but taking all of them into account consciously.

The researcger noticed that the words Mr. Sijmons selected for the three aspects seemed to cover a broad scope of relevant ideas when discussed in relation to different landscape projects. In the garden design example, he refers to the 'economic' aspect as the client's budget, which could also be understood as the client's requirements or expectations. Accordingly, it is much related to the field that Dr. Thompson identified as the social value. In order to understand the fields the three quality aspects cover, the meanings behind the words must be clarified. In so doing, Mr. Sijmons was asked to explain the meanings of these three quality aspects. This will be presented in the following section.

4.3.3 The three landscape qualities

In his article, Mr. Sijmons mentions the three landscape qualities, which are very similar to the three positive values suggested by Thompson, yet, they are not identical. Therefore, the researcher has continued to question the meanings of the three qualities i.e. the economic, ecological, and aesthetic qualities that Mr. Sijmons specifies. He then referred to the origin of these qualities and says: 'This is a sort of a landscape translation of the three basic qualities of Vitruvius, a Roman architect who wrote the seven books on architecture...He was the first to publish a sort of a handbook on architecture about how architects should work' (Interview transcript). As Mr. Sijmons continues to discuss Vitruvius' ideas in his own words, he explains, 'there are three major factors when there is quality: first, the building must be very useful …and it has to be constructed very well …third, it has to be a pleasure for the senses; …when these three factors are in a beautiful way combined, and then architecture has qualities' (Ibid). Vitruvius' comment on the aims of architectural design is regarded as wise, ancient knowledge, according to Mr. Sijmons. Therefore, he employs Vitruvius'

ideas and puts them into the context of the work of landscape architecture. Accordingly, the three key landscape qualities are stated as the economic, the ecological and the aesthetic qualities. Why does Sijmons use 'economic' instead of 'social' to define the first landscape quality? As he explains, 'the usability of the landscape could be very well connected to the economy of the landscape: how land use and very different land use forms are using the landscape? There must be a very good economic landscape' (Ibid). When asked how the social factors are addressed in his definition of the landscape qualities, Mr. Sijmons agrees that the social aspect is included in the economic quality but at the same time, he also admits that social factors cannot be covered by the restricted definition of the economic factors. He continues: 'the social factor is what makes landscape comes to life; it's the landscape of humans. It's the things that people do, of course, which have an economic component, of course, they have an ecological component, and of course, they enjoy aesthetics'. Mr. Sijmons thinks that to talk about social quality will necessarily include the economic, aesthetic, and ecological qualities. Therefore, he prefers to use 'economic' instead of 'social' to describe the first landscape quality. Although his selection of words, or rather his translation of Vitruvius' ideas, regarding the landscape qualities or the positive landscape values, is slightly different from Dr. Thompson's, he points out the origin of the three value fields.

According to Lang (1987: 22), the three basic building purposes of Vitruvius are addressed as 'the concerns of designers'. As Lang (Ibid) states, 'any categorisation of the concerns of a field is biased by the views of the person making it, because it depends on that person's experience and attitudes'. However, there is still a general agreement on the concerns of design and this consensus is based on Vitruvius' ideas.

To take the field of architecture, for example, Lang uses a table (Table 1) to present this consensus from the comparison of the statements given by different authors.

Vitruvius	Wotton	Gropius (Modern Functionalism)	Norbert-Schulz	Steele
Utilitas	Commoditie	Function	Building Task	Task instrumentality Shelter and security Social contact
Venustas	Delight	Expression	Form	Symbolic identification Pleasure
Firmitas	Firmenes	Technics	Technics	Growth

Table 1 The concerns of the design fields as stated by different authors (Lang, 1987:22)

As Lang's table shows, while different authors use different words to address their ideas, the fields of the designer's concerns can be categorised into three main classes, as Vitruvius suggested. When turning to the field of landscape architecture, these three aspects are also the main concerns of landscape architects. The only difference is about the end product, or rather the design object. In the architectural field, the design object is all about buildings, whether it is a house or a theatre; as to landscape architecture, it is about the land in general or specific landscapes and the spaces that are not confined to buildings. Mr. Sijmons is wise to say that the Vitruvian statements can also apply in the field of landscape architecture and there could be a sort of landscape version of the three aspects of designer concerns. As in the field of landscape architecture, different authors also use different vocabularies to express their ideas concerning the three aspects of landscape work. In Table 2, three landscape versions of the Vitruvian statements are presented, according to the different authors who suggest them against the original Vitruvian version.

Vitruvius	Sijmons, D.	Turner, T.[9]	Thompson, I.H.
Utilitas	Economy	Social aim	Community
Venustas	Aesthetics	Visual aim	Delight
Firmitas	Ecology	Natural aim	Ecology

Table 2 Landscape architectural translation of Vitruvius' idea

Although the words selected by different authors may have various implications, the underlying concepts of the different articulations are not divergent when compared with the original Vitruvian statements. When referring to the Vitruvian statement and its different versions expressed by different authors in the architecture field, Mr. Sijmons' three landscape qualities can be directly connected to Dr. Thompson's three positive landscape values. In his book, Dr. Thompson mentions that the book title, 'Ecology, Community and Delight' is related to Wotton's 'Commodity, Firmness and Delight' (see Table 1: 94). Therefore, while Mr. Sijmons and Dr. Thompson have their own landscape version of the Vitruvian statements, their connection is evident; and even though their usages are dissimilar, their origin is identical. Mr. Sijmons' landscape approach though is more or less like a local landscape theory particularly developed for the landscape practice in the Netherlands, and indirectly, it brings out the theoretical reference of Dr. Thompson's landscape value categories to the Vitruvian theory. As to the application of these core values, Mr. Sijmons' approach could be understood as one possibility to achieve a tri-valent design; yet it is not necessarily an optimal tri-valent. On the one hand, Mr. Sijmons' landscape approach supports Dr. Thompson's positive landscape values; on the other, it seems less confident in pursuing an optimal tri-valent design.

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[9] Turner, T. (2001) Hyper Landscapes. Landscape design Oct. 2001 page 304

4.4 Conclusion

This chapter has reviewed the studies/works that are related to this research in identifying the shared theoretical principles of landscape architecture. The three positive landscape values that Dr. Thompson identified in his research, i.e. the aesthetic, social, and ecological values, present the most significant values shared by the landscape professionals and are suitable to serve as a basis to discuss the qualities of a landscape project. According to Mr. Sijmons, these positive values, with slightly different wordings, are referred to as the quality aspects that the landscape practitioners have to consider to deliver quality landscape works. Since these three landscape values are closely related to Vitruvius' ideas, when interpreted in terms of the Vitruvian expression, they could be understood as the basic purposes that all landscape projects share. Therefore, these three positive values not only can be used to evaluate the quality of landscape projects, but themselves also stand for the shared concerns of landscape practitioners in landscape practice. In this regard, these three value aspects could be referred to as the principles that landscape practitioners share when conducting landscape projects. Since these three broad fields of landscape principles are named differently, according to different authors, to avoid confusion and to focus on their application as basic landscape principles, in this research, they will be referred to as the aesthetic principle, the social principle, and the ecological principle.

Apart from having the same theoretical reference, both Mr. Sijmons and Dr. Thompson emphasise that desirable landscape works are achieved by fulfilling all the three landscape principles. Yet, instead of optimising all the three landscape qualities, Mr. Sijmons' landscape approach is to re-address the equal importance of all these principles and it accepts that in reality, as landscape projects differ, landscape

architects may have different degrees of emphases on each of the three landscape principles, while they cannot completely ignore any of them. Since Mr. Sijmons' approach is suggested as a remedy to the overemphasis of the ecological value in the Dutch landscape practice, it could also be understood as a specific local/cultural landscape theory that takes all the core landscape principles into consideration. Accordingly, when comparing Mr. Sijmons' landscape approach to Dr. Thompson's value discourses, it is identified as related to the aesthetic discourse, 'Good Design'. Since 'Good Design' is a less distinct concept, suggested in Dr. Thompson's research as an opposite concept to the aesthetic discourse of artistic expression, whether it is itself another landscape value standing for local/cultural landscape theories, or an expression of a sort of tri-valent design, is not so straightforward. The cultural/local factor must be brought into discussion to dismiss this uncertainty about the relations between specific landscape theories and universal landscape principles.

As the shared theoretical principles of landscape architecture are identified in this literature study, they shall be further explored in a cultural/local context to discuss the role of specific landscape theories/approaches to these universal principles. This exploration will be presented in the following chapters.

5 THE SAMPLE CASES

5.1 Introduction

This chapter will present a comparative study of a total of fifteen Taiwanese landscape projects. These cases are selected from the 'The First National Good Landscape Projects Competition' in Taiwan. According to the sponsor, 'the Construction and Planning Agency of the Ministry of Interior, The Executive Yuan, R.O.C.' (1998), the purpose of this competition is to promote a positive competition in the field of landscape architecture by establishing an evaluation system for quality landscape works. The ultimate goal is to help the public to guard the quality of landscape projects. As such, this competition is itself an action responding to a deep anxiety of the landscape professionals regarding the low quality of many Taiwanese landscape projects (Li, 1995; Ling, 1995; and Wang, 1999). The use of these cases is therefore appropriate, not only because it brings the cultural/local factor into the study of the universality of the core landscape theories, but also because it reflects the Taiwanese landscape professionals' ideas of quality landscape projects.

The case unit of this comparative study of selected cases is the design concept of these sample cases. Since the study purpose here is to follow up the core landscape theories identified in the literature study, this case study is also referred to as a theoretical sampling process. According to Strauss and Corbin (1998: 202), 'the aim of theoretical sampling is...to compare events, incidents, or happenings to determine how a category varies in terms of its properties and dimensions'. To facilitate this comparative analysis, Dr. Thompson's value discourses will be employed to help sort the design concepts. The following sections will provide an overview of the sorting results, which will be further analysed in the next chapter.

5.2 The inceptive analysis – case evaluation

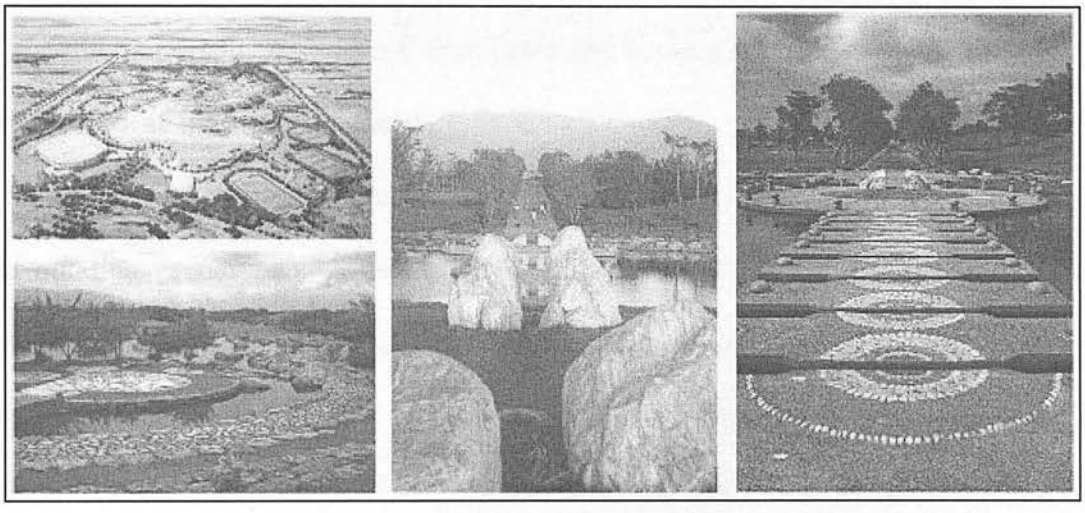
This section will present the inceptive analysis of the sample cases in the form of an evaluation of each selected case. Instead of being used in a conventional way so as to judge or appraise each project, this evaluation is, in effect, a tool to sort the ideas stated in the design concepts of the sample cases. The sorting procedure actually has two stages. Firstly, the content of each design concept is sorted against the ten distinct value discourses of Dr. Thompson and a table (see Appendix II) for this initial classification is used to record the sorted ideas. The evaluation here is itself a further sorting tool to indicate different degrees of emphasis for a certain value category. While the initial sorting aims to identify and record varied ideas, the evaluation is to grade the sorted concepts, in terms of the depth of the consideration revealed in the design concept text. The bar chart that Dr. Thompson suggests for landscape criticism is applied in this analysis to present the results of this grading. Yet, the grades are simplified to three different levels i.e. low, medium, and high. The criteria for the grading is defined as follows: when there are several ideas revealed in the design concept texts regarding a certain value category, or one value concept is clearly perceived and repeatedly discussed, the grade of 'high', or 'scale 3' in terms of the vertical scale of the bar chart, will be labelled; but if there are less than two ideas revealed in the category, and the ideas are only mentioned in the texts without further elaboration or discussion, the grade will be marked 'medium' and 'scale 2' will be given; finally, if there is no clear idea revealed but an implication about a value category can still be perceived, a 'low' grade i.e. 'scale 1' is given. The criteria are set in this way so that all the potentially relevant ideas or data will not be omitted; and thus, only when no relevant idea regarding the value category is found at all, will the grade of 'none' or 'scale 0' be made.

Since the case study unit is the design concept, each of the sample cases will only be analysed according to its design concept. In addition, to avoid redundant content, the discussion of each case will focus on the initial sorting results and grading considerations. The table used for the initial sorting and the translations of the full design concept texts will also not be presented along with the discussion but in Appendix II. However, some basic information about the studied cases, such as the project size, location, and its use etc., will be listed ahead of the discussion, to give readers a general idea about each case. Nevertheless, it must be stressed that this inceptive analysis is to classify the design ideas of the sample cases, according to the value categories and the degrees of designer emphasis, rather than to assess how good the cases are, or how well the design concepts are fulfilled. The basic information of each case will therefore not be used in any way to influence the evaluation results. Moreover, in order to convey the impressions that designers wish to express, the case evaluation will only present the photos submitted to the competition. Other photos and information that the researcher collected from the field study will be used in the following analysis. Although the information submitted to the competition may show designers' biases, and there is also a possibility that the expressed ideas are not necessarily perceivable in the completed works, the written texts would still stand for the ideas that designers consciously use in their design. Accordingly, this case study will simply analyse the design statements. After all, the study focus here concerns the universality of the core landscape theories and the possible relations between specific cultural/local theories to the core theories. As the evaluation bar chart will present, there are still three value categories in the horizontal axis. This is because, so far, only three broad landscape value fields are identified from the literature study. Whether specific cultural/local landscape theories can suggest another landscape value category, will also be discussed in this analysis.

5.2.1 **Project 1:** Luo-Tung Sport Park of I-Lan County

Location	: Urban fringe of Luo-Tung burgh, I-Lan County
Project size	: 46.8 hectares
Use	: Civic leisure sport-park
Client	: I-Lan County Government
Designer	: J-A K.Y. Landscape Planning Co. Taiwan Branch
End of construction	: April, 1997

Table 3: General information about Project 1



a) A high-perspective drawing of the whole park (Upper left). b) A view of the water feature: the platform for performance use (Bottom left). c) A distant view of the west axis on the site (Middle). d) The detail design of the steps upon the water (Right). (Landscape Architecture Academy of R.O.C. 1995: 16, 18 and 1998: 19, 20)

Figure 8: Pictures of Project 1

Luo-Tung Sport Park is designed specially for local people's leisure use. The design concept presents a strong social value and the ideas of a social concern revealed in the text are related to the concept of 'amenity'. It is clearly stated that the purpose of the park is 'to provide the residents of I-Lan county a place for relaxing and leisure activities in their daily life' (design concept text, translated by the author). This concern then leads to the idea of reshaping the site topography. By making a pond and using the excavated soil to form hills, the designer wishes to create a smooth and gentle topography suitable for people to exercise or have leisure activities. Since the

detail to achieve amenity is presented, the concept of 'amenity' is not only evident but also emphasised in this project. The social value is therefore given a 'high' grade.

Apart from the social value field, the designer also provides a few detailed descriptions about the layout of the project and reveals a great concern for the aesthetic aspect. While no statement clearly refers to the natural beauty or other concerns about beauty, the designer aptly uses imagination and symbolism to address his aesthetic pursuit. A series of nine artificially formed green hills, the "Jade Hills", are located at the north of the park to echo the distant mountains. In this way, the designer wishes to create a special atmosphere at the site so that when looking at the surrounding scenery, one would feel that 'a green-charm coming from the distant mountain beyond the Lan-Yang Plain is focused into the park centre by the leading of the Jade Hills, and then bursts out and spreads over the whole county' (Ibid). Besides, the traditional Chinese idea of the four positional deities is introduced into the space composition to give it a clear directional character. Finally, the water feature design is led by a story of the water's life: 'the spring emerging secretly from the mountain increases gradually in volume as it flows and ends up in the lake, which is symbolised as the sea' (Ibid). All these ideas are related to the concept of 'artistic expression'. It is considered appropriate to give the aesthetic category a 'high' grade, as it is also obvious that the designer does pay much attention to this aspect.

As to the ecological category, two ideas can be regarded as a sort of an environmental statement. Firstly, an idea of environmental greening is mentioned. Yet, there is no evidence that this idea is raised from an ecological perspective. However, as it is noted that 'the green space is extremely rare whether in Luo-Tung town or in I-Lan city' (Ibid), to provide green space might have something to do with the whole

environmental structure. Nevertheless, this idea is still obscure and shows no direct link to the ecological category. The second idea is about planting design. A planting experiment was made with regard to the problem of the high ground water level of the site and some indigenous plant species were introduced into the design. Although the designer did not express any ecological concern directly and no concept of Dr. Thompson's ecological discourses is identified in the text, it is still believed that the planting design and the provision of green space should have an implication for the ecological category. Therefore, instead of a '0' score, the ecological aspect of this project will have a mark of scale '1' i.e. the grade of 'low'. Since these ecological implications are related to the ecological structure of the local area, they are noted as 'respect of the ecological structure' under the category of ecological discourse outside the paradigm.

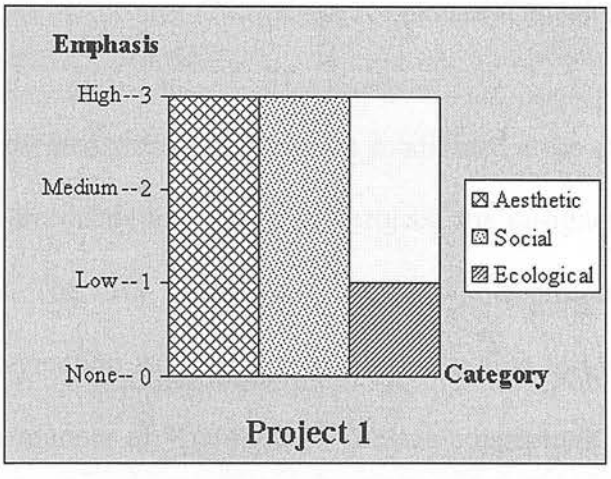
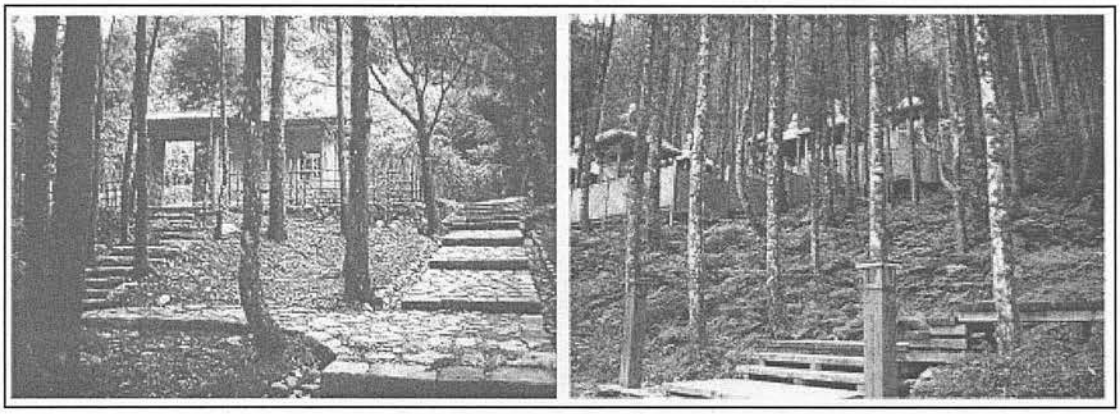


Figure 9: The evaluation of Project 1

5.2.2 Project 2: Landscape Construction of Ming-Chih Forest Recreation Area

Location	: Tai-Ping Mountain district, Ta-Tung Country, I-Lan County
Project size	: 11.02 hectares
Use	: Forest recreation
Client	: Vocational Assistance Commission for Retired Servicemen
Designer	: C. T. Kuo/ Laboratory for Environment and Form
End of construction	: February, 1996

Table 4: General information about Project 2



a) Stone steps diverging from the Ching-shih Garden ascent toward the Flora Garden and lead into the woods (Left). b) The Forest Fairytale Labyrinth is made within the manmade forest in a form that reflects the characteristics of the surrounding trees (Right). (Landscape Architecture Academy of R.O.C. 1998: 22, 25)

Figure 10 : Pictures of Project 2

The design concept of this project is presented along the five main subdivided areas of the design layout. Without a concise introduction to the whole project, the designer rushes to describe each main sub-area. The only statement about the whole project emphasises that '"Ming-Chih Forest Recreation Area" is thought of as the first forest recreation area to be designed after the manner of "Gardening"' (design concept text, translated by the author). It is therefore not surprising to find that the designer reveals a strong aesthetic concern and the five subdivided areas are designed as different 'theme gardens'.

'Artistic expression', the major and only aesthetic concept found in the text, is the most distinct design principle of this project. In the area of the natural pond, 'Ming-Chih', a few dried trunks of red cypress are arranged in the pond to create a scene reminiscent of an ancient wood. It is also described that 'the mountain peaks of the northwest background resemble a brush-pen rack (therefore, it is named "Brush Bin Peak"), and by contrast, the pond, Ming-Chih, will look like its ink-stone and the dried trunks as its brush pens' (Ibid). The designer seems to enjoy using his

imagination a lot, and in this way, he can bring in many interesting ideas. Another design idea related to 'artistic expression' is revealed in the design of the Shui-chin cave, which is more like an appeal for sensual and spiritual satisfaction. As it is stated, the cave is dug out to provide a place where 'the sound of Shui-chin [which is a water music instrument] will be extremely clear and transparent to cleanse the visitor's secular spirit' (Ibid). There are other design dispositions about imagination and symbolism, which will not be described here; the ideas presented above are sufficient to show that the designer reveals a strong emphasis on the aesthetic aspect of design. Therefore, this project will receive a full mark in the aesthetic category.

As to the social area, no clear ideas can be identified in this project and none of Dr. Thompson's social discourses is referred to in the text. However, after a close review, it is found that the areas of the 'Forest Fairytale Labyrinth' and 'Chueh Garden', which means the Fern Garden, are designed to increase the use and activities that occur on the site. Since the project is for recreational use, to provide more opportunities for users to enjoy their stay may have an implication for the social concept of 'amenity'. Besides, the designer also mentions some design details with regard to the arrangement and provision of facilities. The researcher is therefore persuaded that there could be a hidden idea relating to the concept of 'amenity'. The social category will then be given a 'low' grade instead of 'none'.

The ideas related to ecological or environmental concepts are more elusive in the text. Again, there is no statement directly referring to any of Dr. Thompson's environmental discourses and, at first glance, it seems that the designer shows no concern for environmental issues in this case. Nevertheless, while the designer is keen to express his aesthetic or rather artistic ideas, he is not assertive or lacks respect for

the surrounding environment. From many of the descriptions, the designer seems to have an environmental concept of 'harmonisation'. It is stated in the Ming-Chih area: 'the arrangement of dried trunks of red cypress trees in the pond of Ming-Chih reflects the great natural whitewood of the surrounding forest' (Ibid). Although this statement is more related to an aesthetic concern than an environmental one, other design details also reveal that the designer wishes to design with nature and makes his design fit more with the surroundings. The 'Chueh Garden' is not a man-made fern garden for the sake of a fantastic idea, but instead, it is planned and designed because many species of ferns exist naturally and grow exuberantly on the site. The idea to use the site characteristics and resources to raise the design idea is mentioned several times in the text. For example, it is stated that 'the concept of the "Forest Fairytale Labyrinth" is to use the matrix planting character of the man-made forest to plan and construct a forest labyrinth with a matrix form' (Ibid). It is therefore believed that there is a strong implication in the concept of 'harmonisation'. However, since the designer does not consciously refer to this concept, the ecological category will only be given a 'low' mark.

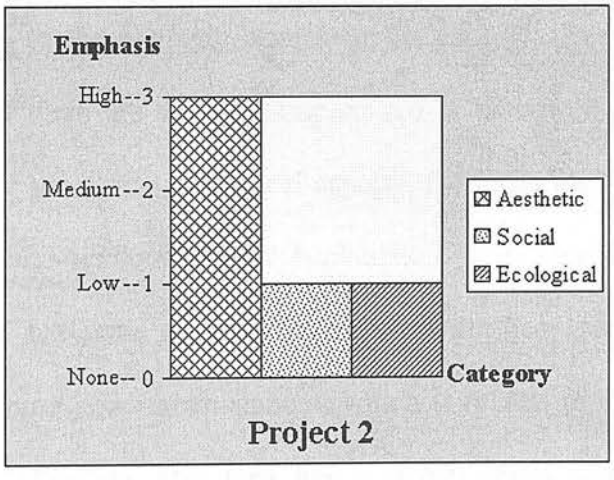
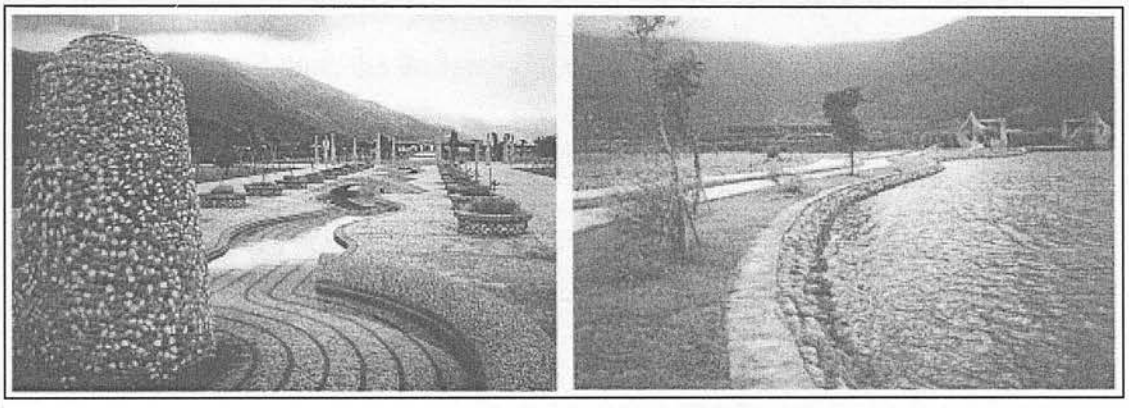


Figure 11: The evaluation of Project

5.2.3 **Project 3:** Kuan-Shan Environmental-Conservation and Water-Friendly Park

Location	: Kuan-Shan Town, Tai-Tung County
Project size	: 28.087 hectares
Use	: Leisure and town development
Client	: Local Administration, Kuan-Shan Town
Designer	: Chu-Ching Consultant Co.
End of construction	: August, 1997

Table 5: General information about Project 3



a) An artificial meandering water course flows from the entrance zone to the naturalised man-made lake (Left). b) A distant view of the canoe-shaped bridge and the man-made lake (Right). (Landscape Architecture Academy of R.O.C. 1998: 28, 29)

Figure 12: Pictures of Project 3

All the three categories are identified without difficulty in this project, and most of the statements referring to the aesthetic, social, or the ecological concerns are obvious. However, not all of them are strongly emphasised or discussed in detail. While the main focus is on the social and ecological aspects, the ideas for the aesthetic concern are less discussed and without a clear explanation. Two ideas about the aesthetic aspect are revealed but none of them is discussed further. One idea refers to the environmental greening and embellishment, which is related to the aesthetic concept of 'improvement'. However, this idea has a strong implication for the aesthetic concept of 'conservation' because no description about the way of improving the view or embellishing the environment is found in the text but the recurring emphasis is on

environmental conservation. The other aesthetic idea is a concern for the riverside aesthetic quality. Here, again, the focus is more on the environmental character and no detail design description is offered. The designer only says that 'the way to re-frame the aesthetic quality of the particular stream scenery and local character of the town for the vision of a landscape leisure town is to accelerate the planning and construction of facilities along the stream shore water-friendly park' (design concept text, translated by the author). It is really a pity that the details of the facilities are not described more, and thus, the designer does not give enough emphasis to the aesthetic aspect. The aesthetic category is then only graded 'medium'.

The social and environmental aspects, in contrast, are the main concerns of the designer. In the social area, identified ideas are related to the discourses of 'participation' and 'amenity'. Methods of public participation, such as recruiting voluntary workers and holding symposia, are stated as the means to 'form a functional environment suitable for local people to use and thus to achieve an overall enhancement of the environmental quality' (Ibid). Although no direct statement is offered regarding the concept of 'amenity', the emphasis that the project aims to help and promote an overall development of the town implies the designer's concern to improve people's lives. As to the environmental aspect, it is also a major aspect of the designer's concern. A recurring theme of environmental greening and conservation is found throughout the text and two environmental discourses are identified, i.e. 'harmonisation' and 'sustainability'. While the design purpose is to promote the development of Kuan-Shan town as a regional tourist centre, the designer is careful about using natural resources. The idea of harmonisation is thus revealed and it is also stressed that the development will be 'under the premises of a strict pollution control and the emphasis of conservation' (Ibid). Through environmental conservation, the

designer also hopes to build an image of the town as a model of an ecological tourist town. In this regard, the designer refers to the principles of sustainability to maintain a good quality of living environment for the future generation and thus to set a good example for the development of a tourist town. Since both the social and ecological aspects are the focal concern of the designer in this project, they are given a 'high' mark.

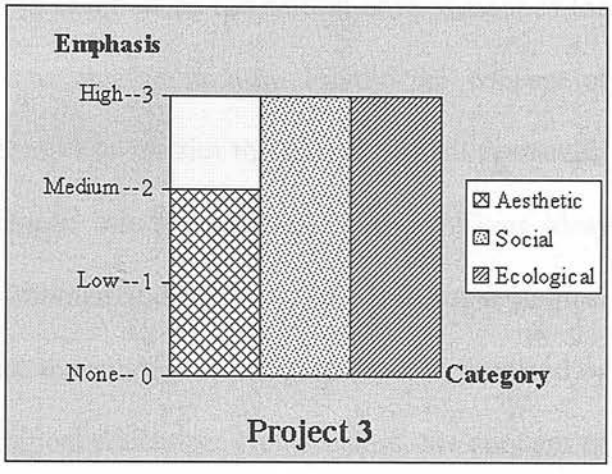
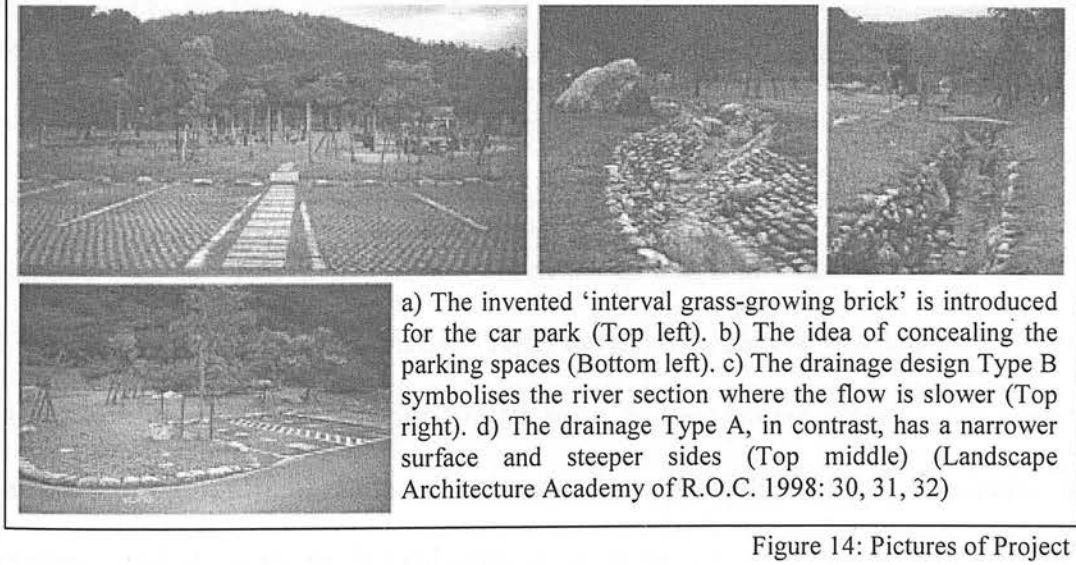


Figure 13: The evaluation of Project 3

5.2.4 Project 4: The Second Car Park Design of Wu-Lao-Keng Scenic Camp Site

Location	: Wu-Lao-Keng Scenic District, Su-Ao Town, I-Lan County
Project size	: 2.1255 hectares
Use	: Parking lot and camping site
Client	: I-Lan County Government
Designer	: J-A K.Y. Landscape Planning Co. Taiwan Branch
End of construction	: November, 1996

Table 6: General information about Project 4



a) The invented 'interval grass-growing brick' is introduced for the car park (Top left). b) The idea of concealing the parking spaces (Bottom left). c) The drainage design Type B symbolises the river section where the flow is slower (Top right). d) The drainage Type A, in contrast, has a narrower surface and steeper sides (Top middle) (Landscape Architecture Academy of R.O.C. 1998: 30, 31, 32)

Figure 14: Pictures of Project 4

In this project, the main concern of the designer is 'to balance the effects resulting from the natural factors and human impacts' (design concept text, translated by the author). Most ideas revealed in the text are centred on the natural environment of the site, and thus, several ecological notions emerge in turn. Firstly, the concept of carrying capacity is introduced as a demand to restrict the use of natural resources. Then, the ecological concepts are developed into several detail designs. Three ideas are not included in Dr. Thompson's environmental discourses. One is about ecological education, and in this regard, to introduce the concept of carrying capacity is stated by the designer as a demonstration of ecological education. Nevertheless, the concern of carrying capacity is, in effect, an idea related to the concept of 'harmonisation' because it recognises the need to reduce negative human impacts on the land. The idea of ecological education is therefore not quite discernable in this project. The other two new ideas are about considerations of detail ecological techniques, such as the innovation of the 'new grass-planting brick' and the design of the drainage system. Although both the detail designs reveal a particular ecological concern, they could also find a place in Dr. Thompson's value discourses. The idea underlying the 'new grass-planting brick' could be related to the sustainable concept because the technology is to provide a healthy environment for grass to stand long and grow continuously. Nevertheless, 'concern for living material' is suggested in the sorting process to mark this detail ecological experiment. As to the drainage design, the detailed description reveals more an aesthetic idea than an ecological concern. This is therefore regarded as a sort of ecological aesthetic and is so-named accordingly. This idea will be discussed later. Another detail design, i.e. the use of indigenous plants, reflects the ecological concept of harmonisation, as the planting design is not bold but conforms to the natural form. As the designer presents various ecological and environmental ideas, the ecological value is given the grade of 'high'.

The other highly emphasised value category is the aesthetic. Two aesthetic ideas are identified in the text. The first, the details of the drainage design, which are mentioned above as a demonstration of ecological aesthetics, is classified as the discourse of artistic expression. The designer presents two types of ditch to symbolise different forms of natural stream. As it is described, Drainage Type A is to express the turbulent flow of a stream so that 'the water course is straighter with steeper banks at both sides' (Ibid). In contrast, Type B is designed to symbolise a slow flow zone 'where the water momentum is becalmed while the river surface is widened and the riverbanks are lowered at both sides' (Ibid). The other aesthetic idea is identified as the accommodation discourse. The design of the parking space is evidently an account of the aesthetic pursuit to accommodate artificial design in the surrounding environment. The design idea here is to provide a 'tree-shaded car park as a harmonious component in the environment' (Ibid). It is also stated that 'apart from bringing in more plants for greening the car park, the changes in topography are used to achieve the effects of concealing the car park...' The details of the car park design further reveal the designer's emphasis on camouflaging or accommodating the parking spaces. The aesthetic concerns of the designer are obvious and thus this project receives another 'high' grade in the aesthetic category.

While the designer pays close attention to the ecological and aesthetic aspects of the project, the social area seems much neglected. The designer simply mentions the basic function of the car park, i.e. parking, will be satisfied. Apart from this statement, no other account is given to address the designer's social concerns. Yet, two descriptions are found to imply the social discourse of amenity. As the carrying capacity is introduced to control the number of tourists for recreational quality and the tourist circulation is designed to concern the continuity and amenity of different spaces, the

idea of social amenity might have a place in the design. Thus, even though the social account is not evident in the design, it is thought that the social value should be given a 'low' grade rather than 'none'.

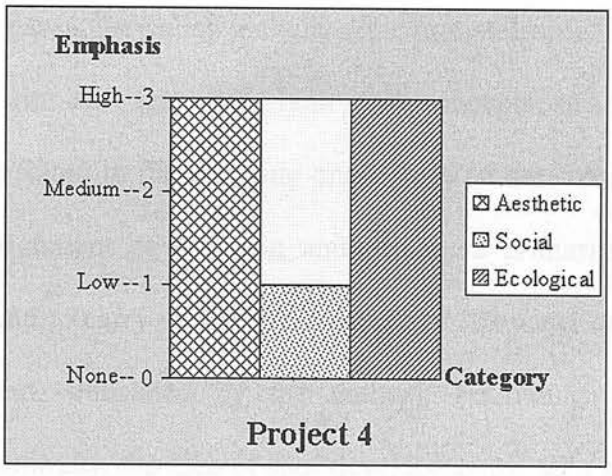
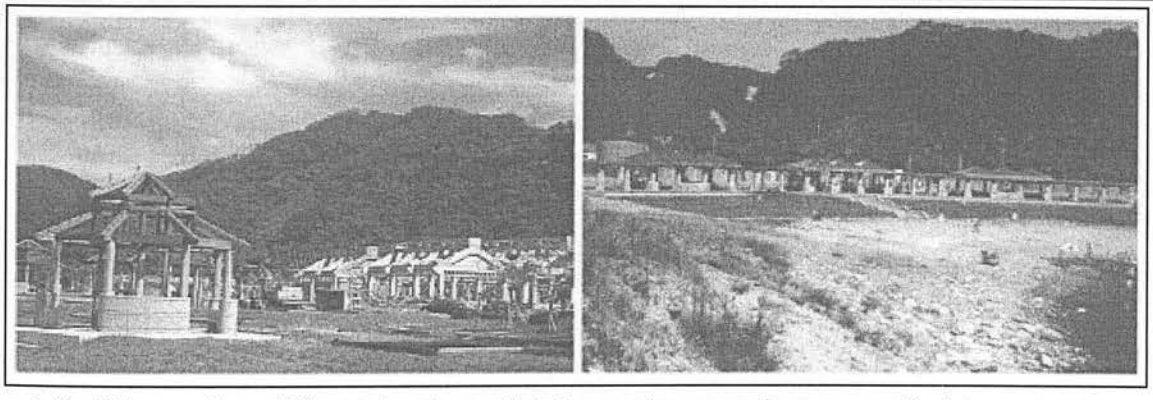


Figure 15: The evaluation of Project 4

5.2.5 **Project 5:** Wu-Lao-Keng Scenic District

Location	: Su-Ao Town, I-Lan County
Project size	: 100 hectares
Use	: Nature scenery recreation
Client	: I-Lan County Government
Designer	: Yen-Sheng Consultant Co.
End of construction	: March, 1995

Table 7: General information about Project 5



a) Facilities, such as different functions of shelters and camp units, are provided to encourage a variety of recreational activities. (Top left). b) The location of the facilities is at the valley plain area so as to retreat the tourists from the riverside and reduce the use of the riverside area (Top right). (Landscape Architecture Academy of R.O.C. 1998: 34, 36)

Figure 16: Pictures of Project 5

This project is located within a vast extent of a scenic district and therefore unsurprisingly, the designer's concerns are very much environmental-oriented. Moreover, the design concepts are introduced along the key geographical features of the site, i.e. the river area, the valley plain, and the mountainside. The ecological ideas are first revealed in the text and both the concepts of 'sustainability' and 'harmonisation' are found in the planning and design of the river area. The designer states that 'the assignment of planning and design is primarily upon the way to maintain its value and to carry on the life of the river (its water quality and ecology)' (design concept text, translated by the author). Following on the notions of preservation and continuity, the idea of spot development is then suggested to prevent a planar extension of tourist activities. While the designer aims for a sustainable and healthy river environment, the operational strategies reflect the attitude of harmonising human impacts on the land. More detailed regulations for selecting the developing spot and restricting certain tourist activities are stated in the text, showing the designer's efforts and concerns to prevent pollution. Since the ecological concerns are emphasised and carried into the details, the score of '3', will be given.

In other geographical areas, the designer pays more attention to the users' needs. The existing recreational use of the site is centred on the riverside area, which has potential safety problems. In view of tourist safety and amenity, the valley plain is selected as the alternative place for riverside activities. In this way, the intensive use of the waterfront area could be released and tourist safety will be secured. In addition to the waterfront activities, the designer also introduces, or rather, encourages mountainside activities by setting up a hiking trail of the whole area. Along the trail, interpretation signals about the natural and ecological vegetation, the geography, and topography are provided for an educational function. An outdoor theatre is also

provided for group performance and activities. Although there is no statement directly related to Dr. Thompson's three social discourses, the researcher is convinced that the designer shows strong social value through his concerns for the user. A few social ideas, such as 'provision of facility', 'introducing new activity', and 'educational use', are therefore brought up to note the social ideas revealed in this project. In addition, the use of the valley plain as an alternative place for activities also has an implication for the concept of 'amenity'. The social aspect is indeed emphasised. It is considered appropriate to give the social category the grade of 'high'.

While the ecological and social aspect are emphasised, the aesthetic aspect is less focused. However, there are also aesthetic concerns revealed in the text. Firstly, the 'improvement' concept is identified as the designer mentions the existing water-purification pond and de-silting dam. A change in appearance of those constructions is suggested in order that the pond and dam will perform as part of the river scenery. Since this idea is not discussed further and no more detailed description is found in the text regarding the aesthetic aspect, the 'medium' grade will be marked for this category.

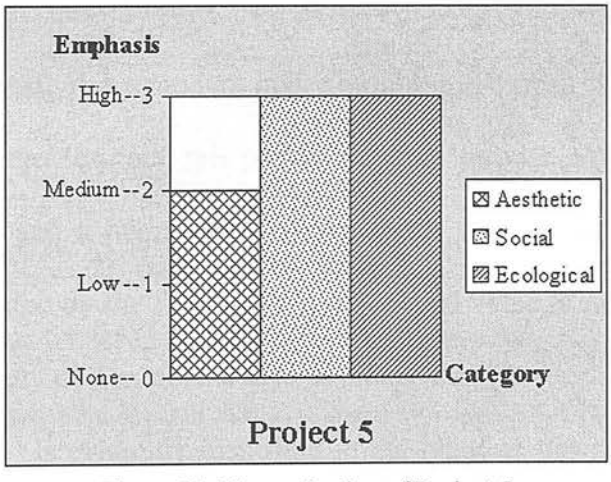
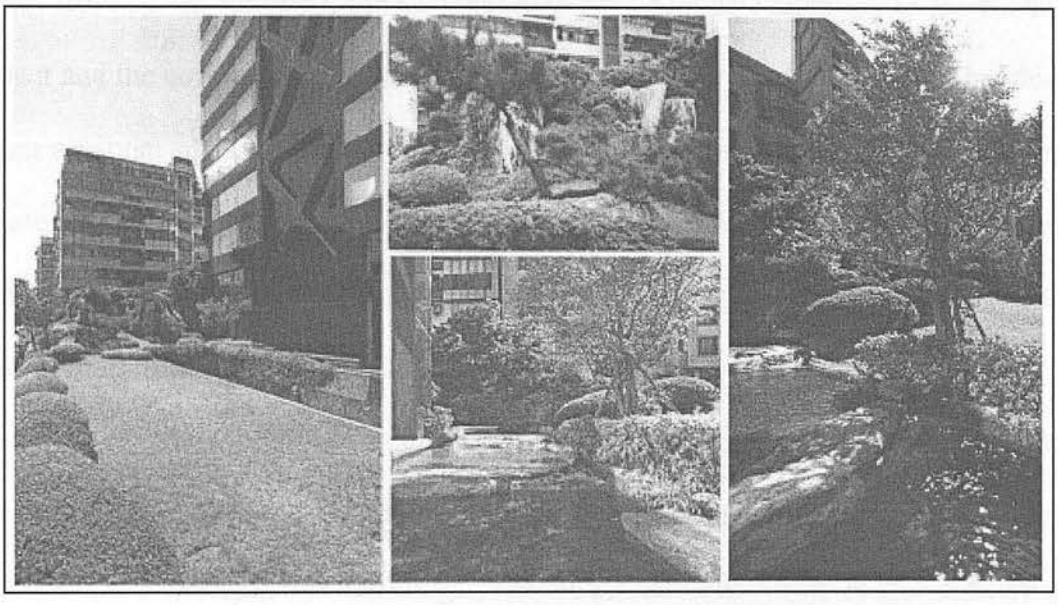


Figure 17: The evaluation of Project 5

5.2.6 **Project 6:** Epoch Finance Mansion

Location	: Sec. 3 Min-Chuan East Road, Taipei
Project size	: 0.2084 hectares
Type	: Building court and surrounding
Client	: Mei-Fu Construction Co.
Designer	: Great Taipei landscape design Co.
End of construction	: December, 1990

Table 8: General information about Project 6



a) A green space is provide in front of the Epoch Finance Mansion to separate the building from the pedestrian walkway (Left); b) Plants are used for decoration (Top Middle); c) The water feature is arranged around the building: a front view (Bottom Middle) d) The same water feature: a side view (Right) (Landscape Architecture Academy of R.O.C. 1998: 39, 40)

Figure 18: Pictures of Project 6

'Epoch Finance Mansion' is a modern office building in Taipei, the capital of Taiwan. Thus, according to the designer, this project aims to 'provide a delicate garden in an urban environment and a humanised outdoor space of a modern building' (design concept text, translated by the author). A strong social value is revealed in the design descriptions and many design details also manifest the designer's care for users. The concept of 'amenity' is evidently identified in the planting design as it is stated that one of the planting's emphases is 'to provide the residents of the community with an

environment of psychological and physical amenity' (Ibid). Many details, such as the arrangement of landscape lighting, street furniture, the parking spaces for bicycles and scooters, and the selection of paving materials, all account for the efforts made to provide an environment of amenity and safety. The social aspect is well emphasised and should receive a 'high' mark.

Apart from social concerns, the designer also pays adequate attention to the aesthetic aspect and the concept of 'improvement' is obvious in the planting design. The idea of using seasonal plants to reflect the seasons of spring, summer, and autumn not only creates a unique character for the site but also enriches the whole landscape. Moreover, the designer's idea of intensifying the entire green landscape by planting also reveals the aesthetic concept of improving the view. The intention to bring in varied plants with variations in the shapes and colours and the arrangement of a green belt around the building are all indeed the manifestation of a wish to improve the dull linkage space between the buildings. The other aesthetic value is the concern for visual and sensual satisfaction in the detail design. This concept of visual and sensual appeal is not included in Dr. Thompson's aesthetic discourses and is often revealed in the details. The lighting design, the selection of paving material and the arrangement of small waterfalls are meant to provide visual interest, textural changes, and sound effects. The detail design descriptions prove that the designer is much concerned with aesthetics and thus the aesthetic category will also be graded 'high'.

As to the ecological aspect, the related idea stated in the text is ambiguous. The so-called 'open ecological aquarium' is the artificial pond with small waterfalls, flowing water, and fishes in it, which really does not have much to do with ecology and the environment. However, since the water feature is named as an ecological

design, the designer is conscious of expressing the ecological value. As such, while the water feature design is described, according to the arrangement of different water scenes and the construction details of the pond, the ecological concept of 'sustainability' is identified. Care had been taken to create an environment suitable for an ichthyologic habitat. The concern for a healthy ichthyologic habitat is not only mentioned in the text but can also be found in the construction of the pond. As it states, 'the pond with its water circulation is designed of a sufficient depth and amount of water to ensure an environment for fish living' (Ibid). Therefore, there is an implication of the 'sustainability' concept in the water feature design. Nevertheless, as the designer's concern is to provide a suitable living environment for fish, the new ecological idea, 'concern for living beings', which is brought up in Project 4, is also used here to mark this ecological concern. When turning to mark the degree of emphasis, it is indeed not easy to tell whether the grade to be given should be a 'low' or a 'medium'. In terms of the ecological concept of 'sustainability', it is only implied rather than purposively observed. Accordingly, this project should only receive a 'low' mark for this category. However, in view of the designer's conscious effort to create an ecological water-feature design and the undeclared ecological principle of 'sustainability' unveiled above, it is considered that a higher grade, 'medium', could be given.

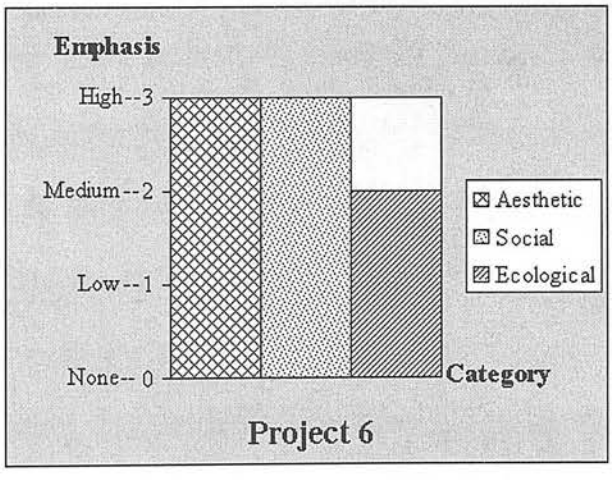
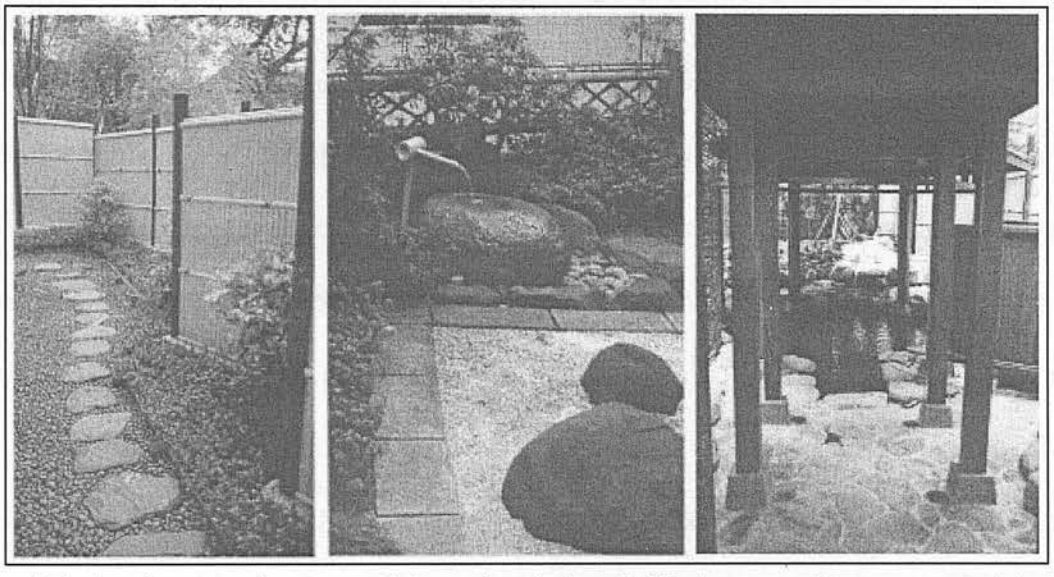


Figure 19: The evaluation of Project 6

5.2.7 **Project 7:** The Outdoor Garden of Pei-Tou Spring Hotel

Location	: Around Burning-Ground Valley of Yang-Ming Mountain
Project size	: 0.284 hectares
Type	: Building court and surrounding
Client	: Huang-Pu Construction Co.
Designer	: Lao-Pu Gardening Construction Co.
End of construction	: May, 1998

Table 9: General information about Project 7



a) The bamboo fence is set around the outdoor bath to divide the spaces. Here, a stone path is provided to lead the way out (Left). b) A design detail at the corner of a small dry garden (Middle). c) The outdoor hot spring bath is sheltered by a pavilion (Right). (Landscape Architecture Academy of R.O.C. 1998: 43, 44, 45)

Figure 20: Pictures of Project 7

This project is designed for a commercial purpose and the users will largely be the customers of the hotel. Since the hotel is located in Pei-Tou, a district famous for its natural hot spring, the design of the hot spring area in the project refers to the use of this natural resource to form outdoor baths. While providing natural hot spring baths is the main design idea, no ecological design statement is given in the text. Thus, the ecological category is given a '0' score, as the designer does not present any concept with regard to this aspect. The design ideas and detailed descriptions in the text are all about aesthetic and social concerns.

The major aesthetic concept is identified as 'artistic expression' and this can be seen from the design of every sub-area. In the entrance area and major courtyard, a hand-washing bowl, which is larger than normal, is placed to express the idea of a tranquil spirit and of welcome. Through symbolism, the designer comes up with many ideas to lay out the design plan and to create a special atmosphere. In the backyard garden area, the designer uses the ideas of the Japanese Dry Garden as a response to the impression of a hot spring town that Pei-Tou district makes on people. As such, Taiwanese cherry and Japanese maple trees are selected and planted at the rear slope area to achieve the effect of having red colourings over the hill, and so as to strengthen the impression of the northern countries that the designer wishes to create. The other aesthetic concept, 'accommodation', is found in the planting design. This concept is not obvious but can still be identified as it is noted that 'a bamboo grove at the space adjacent to the building is used as a covering element, thus giving the effect of a natural background' (design concept text, translated by the author). The aesthetic aspect is indeed the main designer concern and thus should get a 'high' grade.

In the social category, the relevant ideas cannot be readily identified, according to Thompson's social discourses. However, the details of the backyard garden design such as the bamboo curtain and fence, the pavilion, and the walk path and paving, all have functional considerations and demonstrate the designer's concern for the users' needs. Besides, the design of the main courtyard area also shows the considerate arrangement of the focal scene and dining tables and the flexibility of changing space use to accommodate different activities. The concern for the proper arrangement of the sculpture, the outdoor coffee-seat, and their connection to the indoor restaurant is an effort to offer the users a pleasant dining environment, which also have implications for the social concept 'amenity'. As it is obvious that the designer

expresses many concerns about users' needs and functional use, the social aspect is emphasised and is given the 'high' grade. Two social ideas outside Dr. Thompson's discourses are identified and noted as 'provision of facilities' and 'functional consideration'.

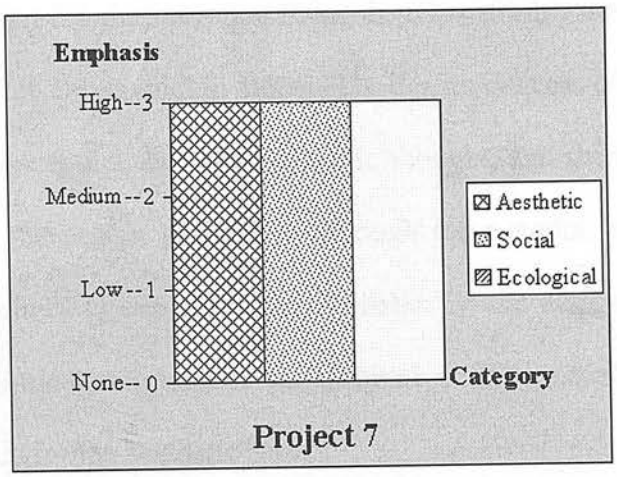
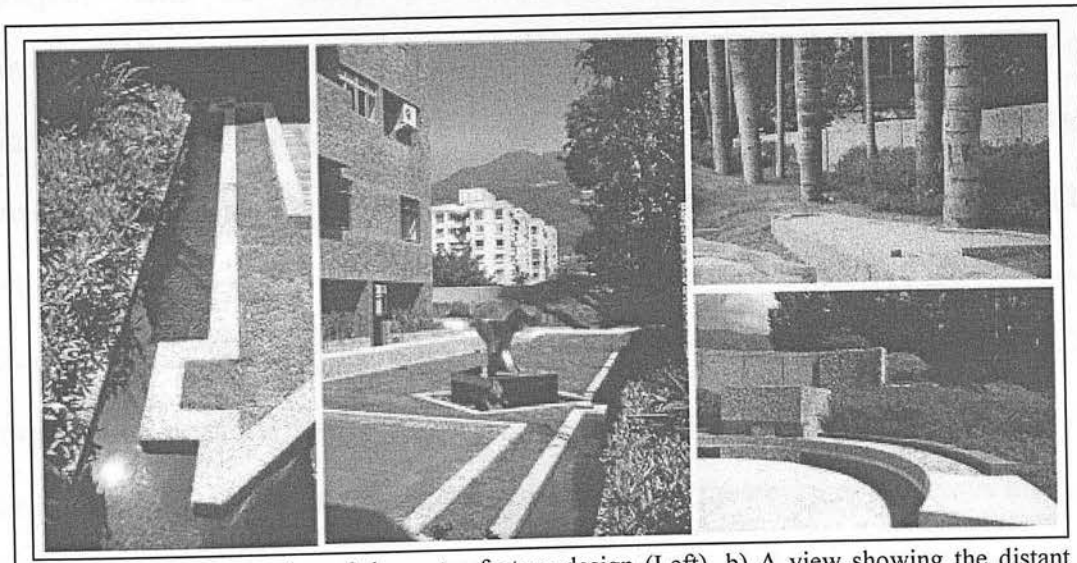


Figure 21: The evaluation of Project 7

5.2.8 **Project 8:** Pei-Tou Huai-Shih

Location	: Ta-Yeh Road, Pei-Tou District, Taipei
Project size	: 0.1398 hectares
Type	: Building court and surrounding
Client	: San-Pao Construction Co.
Designer	: Design Department of San-Pao Construction Co. & Chen, Wen-Lung Architect Office
End of construction	: October, 1996

Table 10: General information about Project 8



a) An abstract expression of the water feature design (Left). b) A view showing the distant mountain as the background scenery of this design (Middle). c) Plants and detail design at one border of the site (Top right). d) The design detail at the entrance area (Bottom right). (Landscape Architecture Academy of R.O.C. 1998: 47, 48, 49)

Figure 22: Pictures of Project 8

Pei-Tou Huai-Shih is a courtyard design for the residents living in 'Huai-Shih', the new housing estate located within the Pei-Tou district in Taipei. The design concept of this project is presented first with a conceptual, or rather, a poetic thought, and then follows a clearer gist to account for the design principle. Although the account is somewhat abstract, as the designer inclines to express himself artistically, the design ideas are rather simple without many intricate thoughts or values involved. The major, and almost the only, designer concern is for the aesthetic aspect.

A strong artistic expression can be sensed from the poetic statements of the main design thoughts to the emphasis on the imagery of harmonisation that the designer wishes to make. Nevertheless, the designer does not mention symbolism or give an intellectual account in the text but refers to the philosophies of Confucianism and Taoism. In this regard, the ideal approach that the designer expresses for respecting site characteristics is to learn from Chinese gardens, in which scenes are arranged with respect for the natural scenery of the local environment. Accordingly, while the designer states that 'landscape design should complement the surrounding environment and combine with it as one unity' (design concept text, translated by the author), he refers to the approach to create a garden with a special style that reflects local characters rather than a concern for the environment or the community. It is then evident that the design gist is centred on the spiritual satisfaction that a garden design should bring and the key is to use the natural scenery for design inspiration. This emphasis on imagery is regarded as a kind of artistic pursuit and is classified under the aesthetic discourse of 'artistic expression'. Since the designer expresses much at this point, the researcher is persuaded to give a 'high' grade in the aesthetic category.

As to the social and ecological aspects, it seems that the designer fails to pay a lot of attention to them. The idea related to the ecological concept of 'harmonisation', as it

is discussed above, is, in essence, an aesthetic notion or principle of Chinese garden design. As such, to say there is an implication of an ecological idea in this project is not convincing. It is therefore considered that a '0' score should be given to the ecological category here. In contrast, the social category is graded 'low' as a statement is found in the text implying a social concern. The designer says in the poetic statements that, 'except for the sophisticated technical manipulation, the expressions of the space should address at a deep level why and for whom the place is made' (Ibid). Then the designer refers to the design materials and details, in which the yearning and hope for home is connoted. This shows that the designer is aware of designing for the residents and intends to emphasise the impression of home in the design. Although this idea does not evidently refer to the social aspect, it is still believed that there is a hidden idea relating to the social concept of 'amenity'. With this regard, to give a 'low' grade rather than 'none' in the social category is considered appropriate.

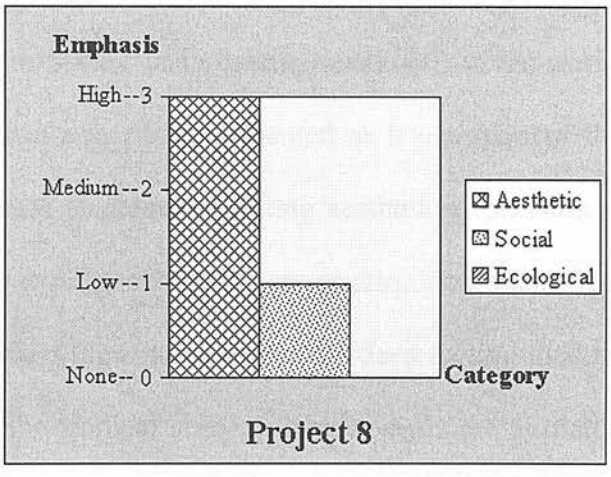
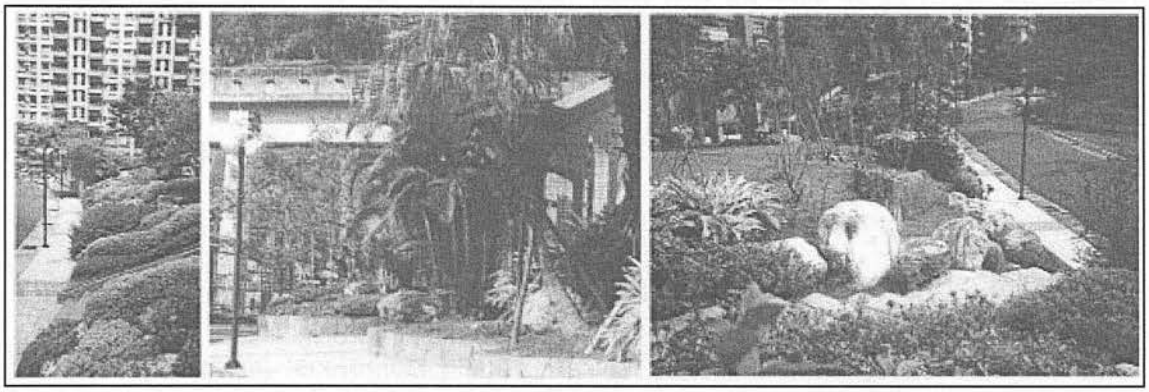


Figure 23: The evaluation of Project 8

5.2.9 **Project 9:** Palm Spring

Location	: Wen-San District, Taipei
Project size	: 1.3538 hectares
Type	: Building court and surrounding
Client	: I-Yuan Construction Co.
Designer	: Liu-Kuo Landscape Design Studio
End of construction	: June, 1996

Table 11: General information about Project 9



a) A side view of the flower bed: plenty of plants are used to create a forest atmosphere (Left). b) The entrance area: tropical plants are largely used in the planting design, particularly palm trees. (Middle) c) Detail planting design: plants at the ground and medium levels (Right) (Landscape Architecture Academy of R.O.C. 1998: 51, 52, 53)

Figure 24: Pictures of Project 9

The design theme of this case follows a rainforest image described at the beginning of the concept text, and accordingly, 'Palm Spring', as a poetic heading, is given as the name for this project. The whole design concept is presented as a narrative of the rainforest image that the designer wishes to create. A strong aesthetic expression is revealed and the concepts of 'artistic expression' and 'conservation' are identified. The description of the admirable rainforest impression shows the deep feeling that the designer had about nature, especially the tropical scenery. This reveals the aesthetic concept of 'conservation' that the designer holds for his design. Accordingly, the epitome of a rainforest is created in a symbolised manner. The tropical plants are introduced to present natural vegetation and to form a special design style. The creation of a rainforest and the idea behind the planting design are therefore recognised as the aesthetic discourse of 'artistic expression'. Nevertheless, the planting design reveals not only an aesthetic idea but also an ecological concern.

Care had been taken over the planting plan, as the designer notes that 'from the upper level to mid-level and ground-level planting, all present a balance in the ecology of a

natural environment; all are in harmony with one another as if in a self-seeded ecosystem' (design concept text, translated by the author). The planting design seems to have an implication for the 'sustainability' concept, as it refers to the concern of a self-sustaining ecosystem for the plantings. However, there is no direct evidence showing the link of the planting design to the concept of 'sustainability'. A new ecological concept, 'ecological planting design', is therefore suggested to mark this ecological idea.

Since this project is an open-space design (including the court yard and other linkage spaces) for the high-density housing estate located in the Wen-Shan district in Taipei, the atmosphere of a rainforest may not be easily recognised in such a sub-tropical modern residential area. However, whether the design evidently reveals its design concept is beyond the scope of the assessment here and it is also not the concern for the evaluation carried out in this section. The study here will only focus on the ideas presented by the designer in the design concept text. As was discussed above, the designer shows an emphasis on both the aesthetic and ecological aspects. Thus, both these value categories will be given a high grade. As to the social aspect, since there is no account provided at all, it will be left with a '0' score.

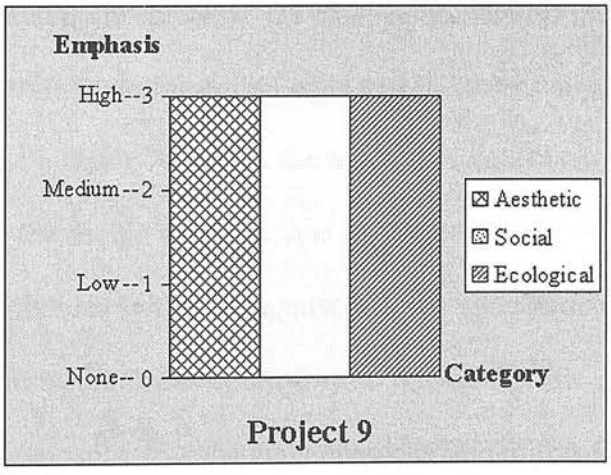


Figure 25: The evaluation of Project 9

5.2.10 **Project 10:** Roof Garden of Han-Min Technology Office Building

Location	: Hsin-Chu Science-based Industrial District
Project size	: 0.125 hectares
Type	: Building roof
Client	: Han-Min System Co.
Designer	: Chun-Wang Landscape Co.
End of construction	: July, 1996

Table 12: General information about Project 10

a) A bird's-eye view of the deck in the roof garden (Left). b) The deck is the place for the users of the building to rest and enjoy the fresh air (Middle). c) Design details: a concern of the garden is arranged with a small sculpture; each plant is given a card to show its basic information (Right). (Landscape Architecture Academy of R.O.C. 1998: 56, 57)

Figure 26: Pictures of Project 10

This project is designed particularly for people working in the Han-Min Technology Office Building. Since the roof garden is offered for a certain group of users, it reveals a strong social concern, which can be seen from the first statement to the detailed accounts. As it is stated in this project, 'the main principle is to meet the user need and in addition to adapt to the interior design style and the micro climate' (design concept text, translated by the author). Although the need of the user is not stated explicitly, it can be implied from the design aim, which is 'to create a place amenable to emotional relaxation' (Ibid). This idea is then recognised as the social concept of 'amenity'. In addition, this statement can also account for the reason that the designer stresses the creation of a restful atmosphere as the main characteristic of this project. Nevertheless, the way to create such an enjoyable place relies largely on an aesthetic approach. The

aesthetic concept of 'improvement' is therefore identified. The detailed descriptions of the design, such as the use of a sloped lawn and wooden deck, the planting design with seasonal change, and the decorative flower fence, all demonstrate the efforts to improve the view.

In this project, one design idea, which referred to the loading capacity, is not readily classified under the aesthetic-social-ecological (environmental) classification. This point is mentioned as a special problem that the roof garden design will have to address; it is a consideration for safety. Yet, this is not so much a social concern as a technical issue, one that is about the building's structure and its loading capacity. Although this concern is only stated without further discussion or detailed description, it should not be neglected and a new concept can then be suggested as 'technical requirement for loading capacity'. Returning to the evaluation, as has been discussed, the designer's focus is on both the aesthetic and social areas. Therefore, both these value categories will be given the 'high' grade. As to the ecological aspect, because no evident concept can be identified in the text, the grade will have to be left as 'none'. Although the designer seems to show a concern for the environment when he refers to microclimate, no further account is offered on this point. The mention of microclimate seems more related to the concern of providing amenity.

It is therefore believed that the designer does not have a strong environmental/ecological concern.

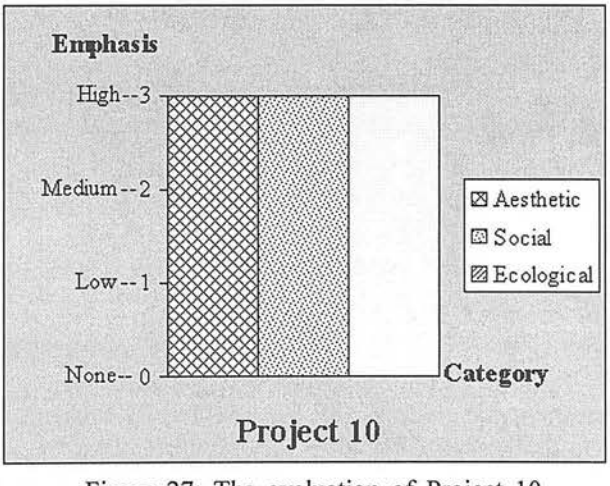
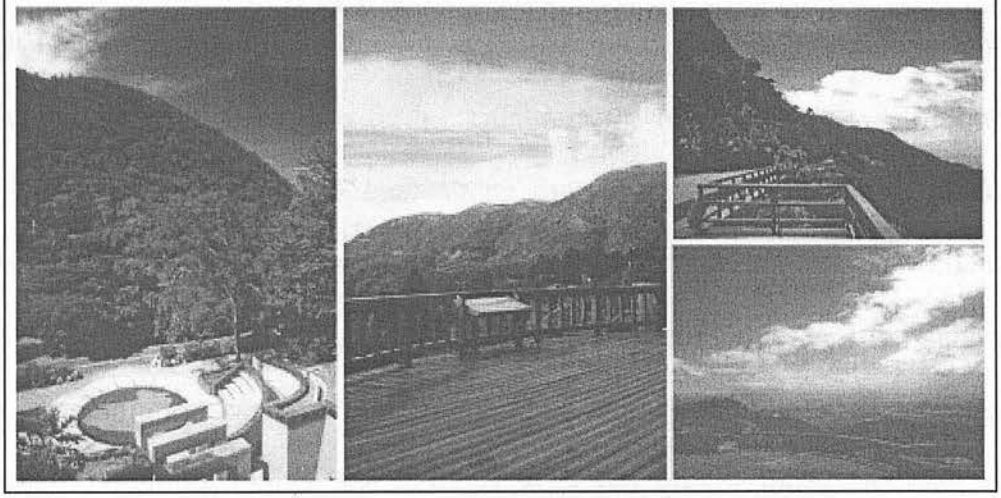


Figure 27: The evaluation of Project 10

5.2.11 Project 11: Pedestrian and Vehicle Traffic-Separation System for Yang-Chin Road of Yang-Ming-San National Park

Location	: Within Yang-Ming-San National Park
Project size	: 6300 metres long
Use	: Conservation and recreation
Client	: Administration of Yang-Ming-San National Park
Designer	: Chu-Ching Consultant Co.
End of construction	: February, 1996

Table 13: General information of Project 11



a) The starting point of the trail is a square with special pattern of the paving, which shows the map of the trail (Left). b) A deck for overlooking: along the trail, decks are often provided when there is enough space so that people can rest and enjoy the view (Middle). c) At certain sections of the trail, a pedestrian walkway is made right at the side of the drive way (Top right). d) A particular point offers a nice view to overlook Taipei city (Bottom right). (Landscape Architecture Academy of R.O.C. 1998: 58, 59, 61)

Figure 28: Pictures of Project 11

Yang-Ming-San National Park is adjacent to the urban area of Taipei city. In view of the problem resulting from the increasing daily traffic flow, this project was initiated under the renovation and construction remit of the Department of Economic Development of Taipei city government and the Tourism Bureau, Ministry of Transportation and Constructions. The purpose in setting up the Traffic-Separation system is 'to ensure visitor safety and to moderate the pressure of hiking activity' (design concept text, translated by the author). 'Based upon the principle of resource

conservation, it is suggested that the type of transportation in the central area of a national park should be based on a walker's track' (Ibid). The design concepts are thus centred on the concern of conservation and the plan for the track.

The concern of conservation is twofold. Both the aesthetic concept of 'conservation' and the ecological concept of 'harmonisation' are identified in the text. It is obvious that the designer is much concerned with the natural resource of the national park and thus it is noted that the whole project is based on the principle of conservation. The environmental concern is then further emphasised when the designer refers to the ideas of minimising use and maintaining the natural resource. However, as the purpose of the project is for user safety and recreation, the ideas are, in effect, the efforts of reconciliation between use and conservation. This reflects the concept of harmonisation. Nevertheless, reducing human impact on nature also reflects an aesthetic concern. Although the designer does not give a further account of his aesthetic idea, it is evident that he appreciates natural beauty, reflective of an aesthetic attitude to 'conservation'. However, it is clear that the emphasis on conservation has more to do with the environment than aesthetics; and since there are no further accounts of the aesthetic quality in the text, the grading for these two value categories will not be the same. Thus, while the ecological category is given a 'high' grade, the aesthetic value is graded 'medium'.

In terms of social values, this project shows an obvious social purpose but it is not directly related to any of Dr. Thompson's social discourses. The idea of providing the track system to separate pedestrians from vehicles comes under user safety considerations. The suggestion of connecting the track with the existing traffic system and each of the recreational places in the park area, offers visitors a convenient and

diverse recreational opportunity. These ideas may have an implication for the social concept of 'amenity' even though the designer does not refer to the provision of amenity as such. Apart from these social ideas, another concept is revealed in the pursuit of a high quality recreational opportunity and experience. Although arguably, this pursuit may not necessarily depend on social considerations, as quality could be achieved through concerns of social values and meeting aesthetic and ecological needs as well, the designer's emphasis here is on the social aspect. By adding an interesting, educational function to the recreational activities, the designer presents his ideas of qualitative social activities, which concerns the conditions of use that tourists may be satisfied with. 'Quality of use', is thus suggested to note this idea as one outside Dr. Thompson's social discourses. Since there are different ideas involved in the designer's social concern, the social category of this project is also given the 'high' grade.

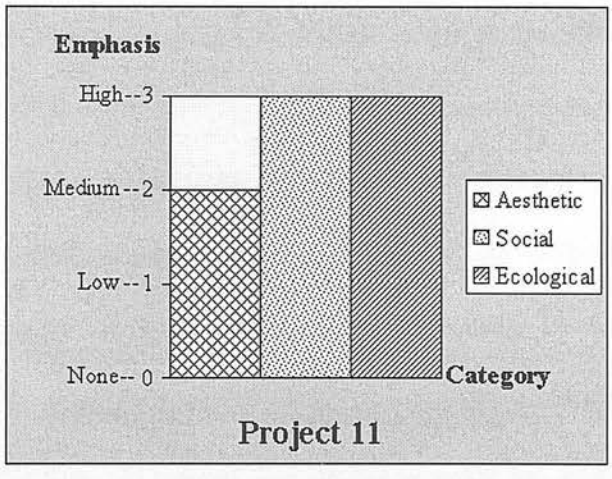
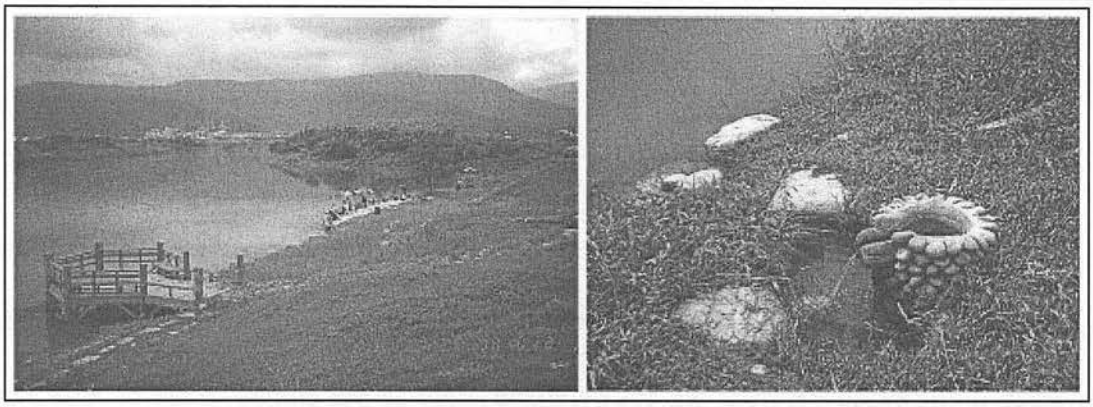


Figure 29: The evaluation of Project 11

5.2.12 **Project 12:** Tung-San Riverside Dyke Construction

Location	: Tung-San River both riversides along the Pearl Village, Tung-San Country, I-Lan County
Project size	: 2.55 hectares
Use	: Riverside recreation and construction
Client	: I-Lan County Government
Designer	: J-A K.Y. Landscape Planning Co. Taiwan Branch
End of construction	: December, 1995

Table 14: General information about Project 12



a) A distant view of the design at the riverside area and the natural surrounding of the site: a hexagonal deck provides a place to rest and appreciate the scenery while the crescent-shaped deck is often used for fishing. (Top left); b) A detail design at the riverside: a drain pipe is designed in a way as an interesting water outlet (Top right) (Bottom) (Landscape Architecture Academy of R.O.C. 1998: 62, 63)

Figure 30: Pictures of Project 12

This project is to renovate the dyke construction of the Tung-San River at the Pearl Village in I-Lan County. On the basis of accommodating a man-made construction in natural surroundings, the designer also introduces the aesthetic concept of 'improvement' and states that 'it is hoped to bring in new vitality at the original landscape of I-Lan for new local scenery' (design concept text, translated by the author). Nevertheless, this concept of 'improvement' is mingled with the aesthetic ideas of 'conservation' and 'accommodation'. No distinct approach to improving the view is provided in the text but merely an emphasis on natural style and harmonisation. To improve the rural village scenery, the designer selects natural stone as the material to build retaining walls at the edges of paddy fields. In this way, the design will look more natural and while the outside slope of the dyke is altered, more green space is provided. By introducing a natural design style, the designer reveals his appreciation of natural beauty. Moreover, the selection of the resting places coordinates the visual line and the use of natural logs reflects the character of natural wood. The designer is much concerned with the relationship of the project to its surrounding environment. The concept of 'accommodation' is obvious. Since the

designer shows great detail with regard to the aesthetic aspect of the design, the aesthetic category will receive a 'high' grade.

In terms of the social category, Dr. Thompson's social discourses are not readily identified in the design concept text. However, the designer does show some social concerns as many details are actually designed for the user. By providing a pathway on the top of the dyke, the designer shows the effort that he made to improve the quality of local peoples' lives and thus it may have an implication for the social concept of 'amenity'. The details, such as the arrangement of the resting places and the provision of facilities, all manifest the designer's concern for users' needs. In addition, a functional consideration is evident in the design of the dyke top pathway as it is expected to 'maintain good connections to external arterial routes' (Ibid). 'Provision of facilities' and 'functional consideration' are marked down to address the designer's social concerns for this project. Therefore, while the concern for 'amenity' is only implied in the design, the social aspect is still emphasised and is indeed a design focus of this project. The social category is given a high grade as well.

As to the ecological concern, the emphasis is not as strong as it is in the aesthetic and social aspects. The identified ecological concept, 'harmonisation', is very much related to the aesthetic 'accommodation' concept. The selection of natural stone refers not only to the natural design style but also to the ecological function. However, the ecological purpose it intends to achieve is not explained. The only related idea is found in the design of the natural-style protecting banks when the designer states that 'it is an attempt to create a protecting bank in order that human recreation can coexist in harmony with the abundant riverside wildlife' (Ibid). The concept, 'harmonisation',

is indeed mentioned in the text even though this idea is not discussed further. It is therefore believed that the designer also has an ecological concern but just does not give enough emphasis to this aspect. The ecological category then is given the grade of 'medium'.

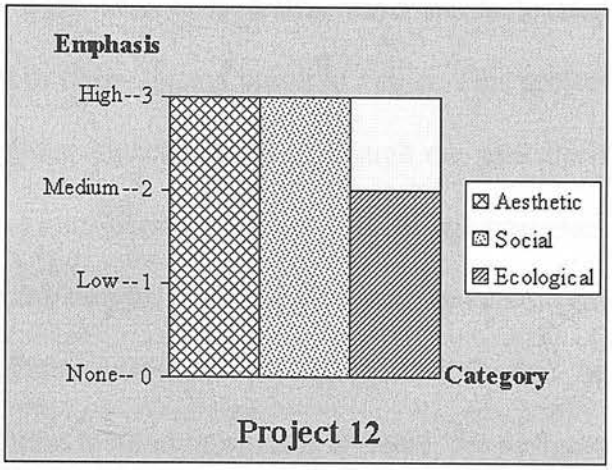
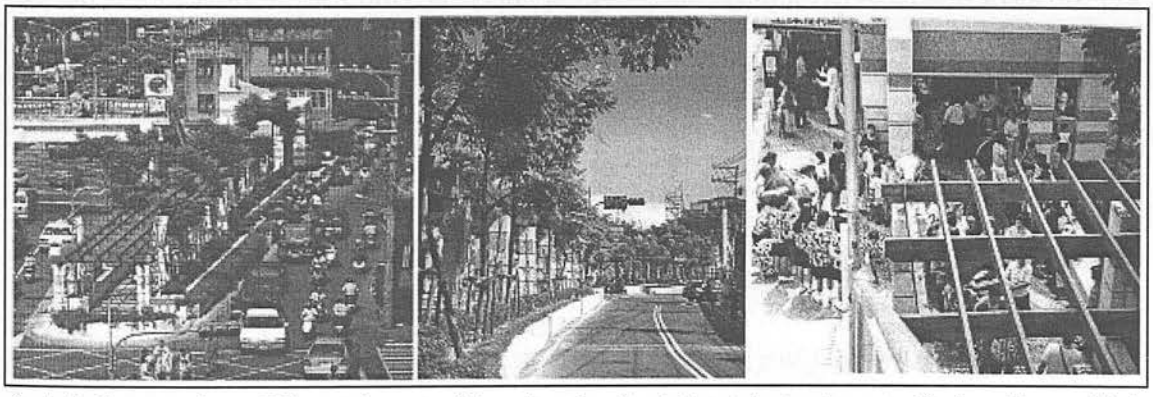


Figure 31: The evaluation of Project 12

5.2.13 **Project 13:** Fu-Ying Green Veranda

Location	: Beside line 1 Taiwan provincial rd. at Hsin-Chuang burgh
Project size	: 0.09 hectares
Use	: A neighbourhood pocket park
Client	: Local Administration, Hsin-Chuang burgh, Taipei County
Designer	: Mr. Chao, Chia-Lin
End of construction	: July, 1997

Table 15: General information of Project 13



a) A bird's-eye view of the north part of the site: the site is located at a busy traffic junction and it is divided into two disconnected parts (Top left). b) A side view from the south part of the site: the two parts of the site though are separated from each other to give a continuous visual impression (Middle). c) The north end of the arcade: this is the place most frequently used and a shelter is designed here (Right). (Landscape Architecture Academy of R.O.C. 1998: 67, 68)

Figure 32: Pictures of Project 13

Fu-Ying Green Veranda, which faces right at a busy traffic junction, is located between one provincial road and a street in Hsin-Chuang burgh in Taipei. This project looks like a small pocket park with two disconnected parts. Although the park itself may not have a significant purpose, it is a considerate transformation of an unpleasant environment in a chaotic urban area. In the design, there is an evident social concern and two social concepts, i.e. 'consultation/participation' and 'amenity', can be identified. Although no specific consultation method or process is stated, the designer refers to a public consultation, not only with neighbourhood residents but also the local authority, to set the design aims and objectives. The design concepts are therefore presented alongside these decisions. The first intention is to reconstruct the residents' space and here, the focus is twofold. One is to provide a linkage space for pedestrian use and the other is to design a small square for community activities. 'The concern for use' is a new idea not readily fitted in Dr. Thompson's social discourses and is noted here to address this idea of space disposition. The other social concept of 'amenity' is identified in the statement regarding the idea of reinforcing a community image. The design of the arcade is to improve pedestrian space and, by giving a strong visual impression, it 'not only prevents people from feeling nervous and insecure but also helps the pedestrians to feel as respected as they ought to' (design concept text, translated by the author). This statement shows that the designer's concern is related to the provision of amenity, which is more a concern to meet an emotional or psychological satisfaction than physical requirements. Since the designer puts the emphasis on the social aspect in this project, this category will receive a high grade.

The aesthetic is another aspect that the designer pays much attention to. From the creation of a community image, to the statement concerned with environmental greening, the designer clearly presents his aesthetic ideas. Both the aesthetic concepts

of 'improvement' and 'artistic expression' could be perceived but no specific statement is provided to stress the idea of improving the view or to explain the intellectual story behind the created image. All the discussion is focused on the notion of visual enforcement and the creation of the 'Green Veranda' image. However, the details for creating the site as a visual focus among its chaotic surroundings are indicative of the designer's wish to improve the view. Moreover, the use of plants not only creates a visually stimulating atmosphere as a green veranda, but also decorates the site and makes it more attractive. The designer discusses at length the details as to how visual enhancement is achieved and the verdant image is created. The researcher is convinced, therefore, that the designer is very much concerned with the aesthetic aspect of his design and that a high grade is appropriate.

As is discussed above, the idea of environmental greening is related to the creation of community image rather than a concern for environmental issues. In addition, no statement regarding the ecological aspect is found in the text. The ecological category, then, gets no marks, which on the chart is represented as '0'.

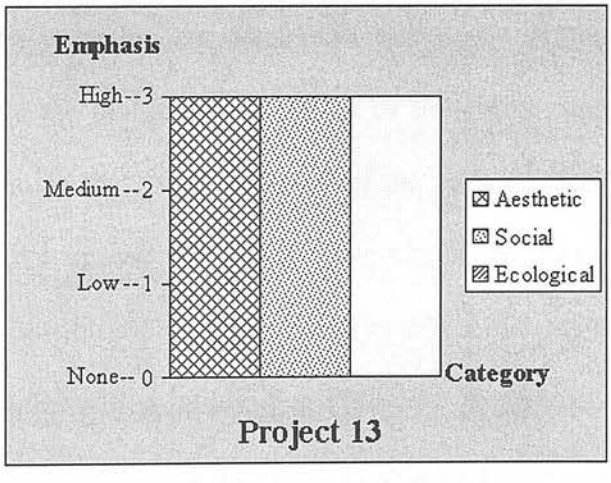
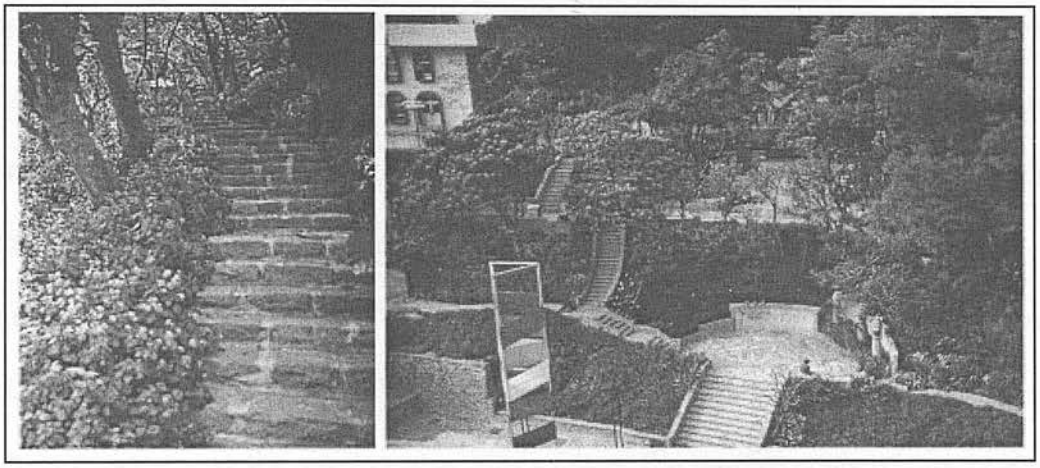


Figure 33: The evaluation of Project 13

5.2.14 **Project 14:** The Outdoor Theatre of Shih-Hsin University

Location	: At Shih-Hsin University campus
Project size	: 0.2 hectares
Use	: Functional outdoor space for students and staff
Client	: Shih-Hsin University
Designer	: Hui-Hsing Construction Co.
End of construction	: October, 1996

Table 16: General information about Project 14



a) A footpath serving as a shortcut: several small walkway and steps are provided at the site as leading to the previously disconnected places (Top left). b) A bird's eye view of the site: with stars and squares, different levels of spaces are connected with one another; and places around this site are also linked up (Top right). (Landscape Architecture Academy of R.O.C. 1998: 71, 72)

Figure 34: Pictures of Project 14

The site of this project is within the Shin-Hsin University campus. Although this design does not involve the planning and design of the entire campus, the designer still pays great attention to the space structure of the campus, pointing out that the lack of sufficient shaded spaces for rest is a result of the space division of the university by each school. In addition, the designer notes that 'as the site is located among the library, the information building, and the She-Wo mansion, it has caused a lot of inconvenience for the students and staff to cross through and reach the other side before the design is complete' (design concept text, translated by the author). This case is very much user-orientated and its design concerns are related to the social

aspect, with a focus on the concept of 'amenity' and 'concern for use', the latter refers to the idea that cannot be readily classified under Dr. Thompson's social discourses.

The design ideas consist of four points: the idea of space connection; the provision of space for rest; the design of an outdoor theatre; and a construction for water and soil maintenance. The detailed discussion of these ideas not only mentions the approaches adopted in the design but also explains the reasons that the designer has come up with these particular ideas, which are similar and related, and all reveal the designer's concern for use. For example, the design of an outdoor theatre is to provide a multi-functional space that can be used for different purposes. In this way, the designer believes that 'the site would provide most benefits' (Ibid); and this idea is about the proper, or rather, the best use, of the site. The design not only encourages users to make use of the site but also tries to meet the requirements of any potential activities that may occur at the site.

The concept of 'amenity' is not directly stated in the text. Nevertheless, the designer's efforts and belief in improving the quality of life for the user are clear from the design approaches he describes. The ideas of linking up small spaces to improve the flow of people and the provision of shaded places by trees where people can stop and rest are, in effect, an improvement on the quality of use. Since the design focus is placed upon user need, the ideal use of the site and the quality of use, the designer is much concerned with the social aspect of the design. It is appropriate to give a high grade to the social category in this project.

The aesthetic aspect is not mentioned at all. Therefore, this category will have to be graded 'none'. As to the ecological category, there is also no clear statement found,

however, the detailed treatment of the soil erosion problem at the car park, may have something to do with an environmental issue. Although the designer's concern is for the users of the car park rather than the environment, the strategies for water and soil maintenance, such as using plants, conducting water flow, and building retaining walls, show that the designer also has the sense to deal with environmental problems properly. Therefore, an environmental concept, 'concern for constructional detail', is suggested to account for this subtle environmental awareness, and instead of a '0' score, a 'low' grade is given.

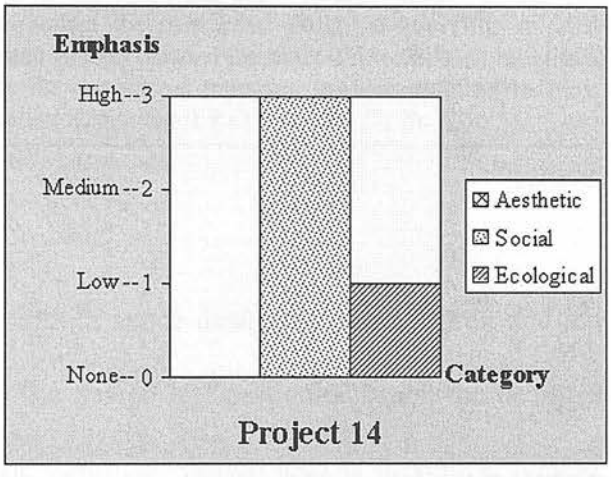
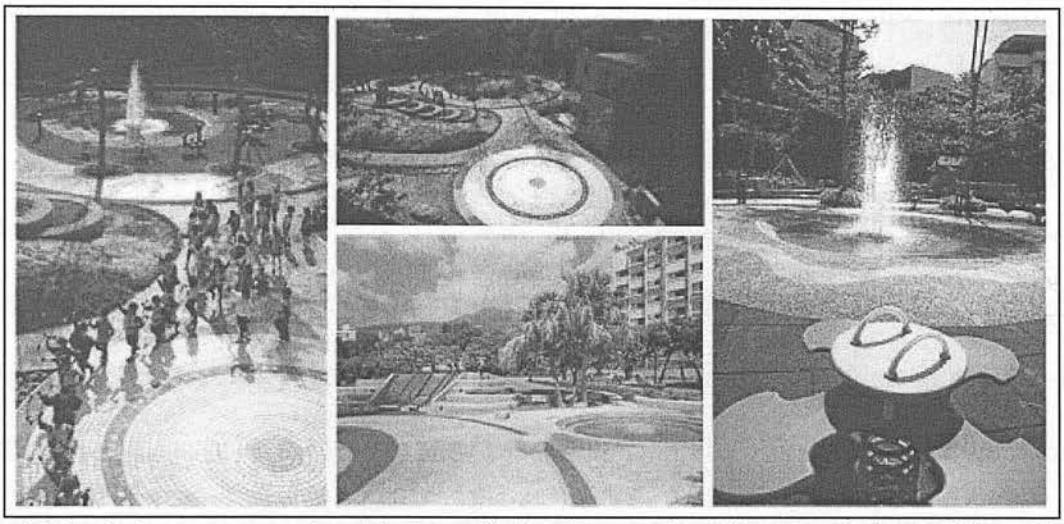


Figure 35: The evaluation of Project 14

5.2.15 **Project 15:** Wei-Ke Nursery School

Location	: At affiliated kindergarten site of Wei-Ke primary school
Project size	: 0.22 hectares
Use	: Children's playground
Client	: Wei-Ke Nursery School
Designer	: Han-Ming Landscape Co.
End of construction	: December, 1995

Table 17: General information about Project 15



a) The design uses a centripetal theme to divide the space for different activities. Children of different ages can share the space and use it in order (Left). b) The paving is arranged in a concentric circle to reflect the centripetal design theme (Top middle). c) More dynamic activities are suggested to take place at the outer circle (Bottom middle). d) Water features are used, not so much for decorative purposes but for children to play and enjoy (Right). (Landscape Architecture Academy of R.O.C. 1998: 75, 76, 77)

Figure 36: Pictures of Project 15

This project is the outdoor space design for the children and teachers of the Wei-Ke Nursery School. As the design has particular users, the designer is much concerned with their needs. The dominant design idea is therefore, related to the social aspect and most of the design descriptions and discussions reflect the new social idea, 'concern for use'. The needs of the users, such as their requirements for varied activities, flexibility of use, convenience for management, and concern for safety, are all taken into consideration in the detail designs. Since the space disposition has to accommodate different activities, a layout of concentric circles is planned to divide activity types and to reduce possible conflict. The design of the facilities is based on a concern for flexibility. The concentric circle zones can also be used as a complete square for events, such as graduation, celebrations, and special gatherings. The paddling pool is also used as an outdoor theatre when dry. By maximising the scope for different uses of the site, the designer reveals a great concern for users' needs.

Apart from the new social notion, another concept of 'amenity' is also found in the text. It is stated that 'in order to achieve a spatial quality of safety, kindness, vigour, interest, and flexibility, the whole area adopts a centripetal theme for the disposition of space' (design concept text, translated by the author). Although the centripetal space disposition seems simply a response to the need for different uses rather than an expressed concern for people's quality of life, the designer's intention to provide the spatial quality may be regarded as the pursuit of 'amenity'. In this project, the whole design concept text reveals only social concerns. A more careful review of the design statements may suggest an implication of the aesthetic concept, 'artistic expression', because the designer refers to the 'added effect' of a festival atmosphere created by the disposition of the concentric circles. Yet, since this 'added effect' is a by-product rather than a deliberate design, the researcher is not convinced that the aesthetic value is consciously adopted in this project. As such, the evolution result remains unchanged and as has been discussed, the designer pays great attention to the social aspect of this design and presents many detailed considerations. The social category deserves a high grade. As to the other categories, the score '0' will be given.

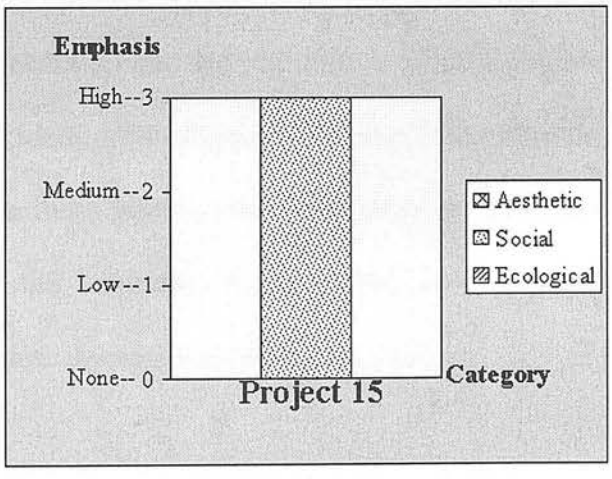


Figure 37: The evaluation of Project 15

5.3 Results of this first-stage case analysis

So far, the sample cases have been analysed in terms of the design ideas identified and sorted, according to the three broad landscape value fields and their sub-categories, i.e. the value discourses identified in Dr. Thompson's empirical study. In the initial coding and classification, it was found that these main value categories of landscape architecture were capable of accommodating almost all the design ideas revealed in the sample cases. Only one idea, the concern for the loading capacity of the building in Project 10, was not readily sorted under the aesthetic-social-ecological division. This exceptional idea will be compared with a related idea found in Project 4 and the discussion will be presented in the next analysis stage. As the present analysis reveals, the three landscape values are universal enough to cover almost all the design concepts of the Taiwanese landscape architects. In addition, Dr. Thompson's value discourses are very useful in identifying and sorting the design ideas of the sample cases. Although a few ideas, particularly in the social field, cannot be directly linked to Dr. Thompson's discourses, most of them have implications for the concepts of those discourses and can still be sorted accordingly. Those that cannot be easily fitted in the discourse paradigm are marked under the category of 'discourse outside the paradigm' (see Appendix II) and each of them is given a succinct note to describe its central ideas. These ideas, also referred to as 'new' ideas, will be later compared with each other and with those paradigmatic discourses to explore their similarities and differences. Here, the relations between the core landscape values and the cultural/local landscape theories must be discussed.

In the course of the case studies, surprisingly, it was found that not many cases expressed a particular concern for cultural or local characteristics, especially when weighted against the three main categories. Although over half of the sample cases

(eight out of the fifteen) refer to site characteristics, many statements are obscure and cannot be identified to account for a distinct concept. All the ideas showing a cultural and/or local concern are closely related to one of the three main categories, particularly the aesthetic realm. While most of these cases can merely offer implications or ambiguous statements regarding cultural/local aspects, four cases express less vague ideas and present them from different angles. This will be discussed as follows:

In Projects 1 and 2, 'Luo-Tung Sport Park' and 'Landscape Construction of Ming-Chih Forest Recreation Area', both designers resort to some Chinese cultural concepts to gain their design inspiration. In Project 1, the four positional deities: Ching-Long (blue dragon), Bei-Hu (white tiger), Chu-Chueh (red sparrow), and Hsuan-Wu (black-force) are symbolised by the arrangement of natural stone to make a clear directional character for this spacious park. In Project 2, one particular Chinese garden design principle, 'Yuan Chung Yuan' (gardens within a garden) is mentioned in the design statements and one certain area of the project is designed, based on the Chinese painting, 'Fu Chun Shan Chu Tu' (Picture of mountain life in exuberant springtime). These examples could all be regarded as 'cultural expression' but are sorted under the aesthetic concept of 'artistic expression' since the use of these cultural ideas is, in effect, an artistic pursuit. Thus, the aesthetic category is sufficient to cover these ideas.

Other relevant ideas are found related to the social and environmental aspects of designs. Again, in Project 2, the design ideas of the 'Forest Fairytale Labyrinth' and 'Chueh Yuan' (Fern Garden) are inspired by site characteristics, yet the descriptions only emphasise the provision of amenities and new activities. This idea is therefore

identified as a social concern. In addition, Project 7, 'The Outdoor Garden of Pei-Tou Spring Hotel', also reveals that the ideas regarding 'local characteristic' and 'cultural expression' have a strong social purpose. The design of the hot spring area in the project refers to the use of the natural hot spring resource to form outdoor baths. However, this is not exactly an expression of respect or reflecting local character but an action responding to functional requirements. The idea, which is more related to the cultural or local aspect, is about the design theme of the backyard garden area, which includes a small garden, hot-spring baths, and a sloping rear area. The designer uses the ideas of the Japanese Dry Garden to reflect the impression of a hot spring town that the Pei-Tou district made on people. The details for making a Japanese Dry Garden, such as the bamboo curtain, pavilion and paving, are briefly discussed in the text. The theme shows a strong cultural expression, even though it reflects a foreign culture. Since most of the descriptions about Japanese garden design are centred on functional concerns, these design ideas are naturally linked up with the social category. Nevertheless, as the designer mentions visual quality and the creation of a special atmosphere, the aesthetic concept of 'artistic expression' is also identified in this Japanese-style garden design. During the process of identifying and sorting design ideas, there is still no problem in allocating the ideas found in this project to the original three value categories.

The other relevant idea, which could be related to both the social and ecological categories, is found in Project 3, 'Kuan-Shan Environmental-Conservation and Water-Friendly Park'. Here, one of the conceptual design purposes stated in the text is to frame/reframe the local character of Kuan-Shan town where the project is located. However, apart from the approach of accelerating the planning and construction of the facility along the riverbank park, no further discussions or explanations were offered

to account for the way the designer worked to reframe the local character. A more thorough reading suggests that although the designer seems to profess a concern for local characteristics, the real focus is placed on a concern of use. It therefore falls short of an insightful account of a concern for local identity or cultural expression. Nevertheless, when compared with other relevant ideas in the concept texts, it is found that there is a recurring theme of environmental conservation and water-friendly use. It is thought that the local character of Kuan-Shan town must have a connotation to its riverbank environment. The idea of reframing the local character is therefore both environmental and social.

Since all the design ideas revealed in the sample cases, including those relating to cultural and/or local landscape approaches, were sorted into the aesthetic-social-ecological classification without difficulties, it is quite convincing that the specific cultural/local landscape theories, instead of suggesting a new landscape value category, are actually covered within the three broad landscape value fields. The aesthetic, social, and ecological values do reflect the universally shared principles of landscape architecture and are appropriate to be referred to as the universal landscape theories or core landscape principles.

As to the relation between cultural/local landscape theories and the fulfilment of a trivalent design, the case evaluation shows that concerns for cultural/local characteristics would not necessarily deliver a trivalent design, especially an optimal trivalent. Moreover, while some sample cases refer to certain cultural design typologies, such as Chinese Garden and Japanese Dry Garden, none of them uses these landscape typologies as the only and overall landscape approach of the project. In other words, cultural/local landscape approaches are often used to fulfil some

design ideas and reflect part of the designers' concerns. Mr. Sijmons' landscape approach is therefore an exception and not all cultural/local landscape theories help to make a good trivalent design, which even applying Mr. Sijmons' approach cannot guarantee. An optimal trivalent is indeed rare in reality; and in the sample cases, although a few designers do show concerns for all three landscape values, all these cases are uneven trivalent. The secondary sorting, which is presented as the case evaluation, reveals that most landscape projects do not depend solely on one landscape theory. However, of all the sample cases, no one, single case provides an example of having paid high attention to all the three landscape value aspects. When comparing the evaluation diagrams, it is easy to note the designers' emphasis upon each of the value categories in each sample case. The majority of the designers show much concern for at least one of the three main value fields in their work. Of the fifteen projects, four have a high level of emphasis placed merely on one value aspect alone (Figure 38).

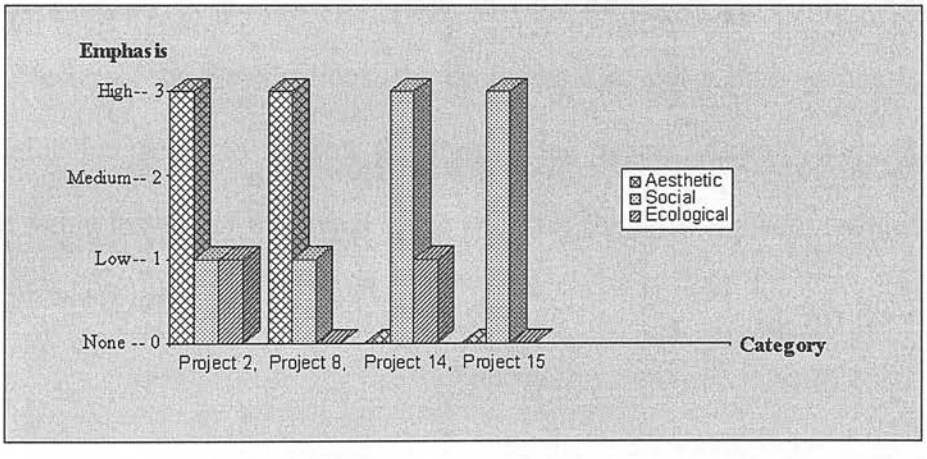


Figure 38: The case evaluation results of Projects 2, 8, 14 and 15

Nevertheless, three of these four cases still show that the designers do not neglect all other value aspects. There are indications of designer concern for one or two other values in three of the four projects. Therefore, while landscape architects emphasise just one certain value field in their designs, rarely will they totally disregard other

value aspects. In most cases, the designers show a high emphasis on two value categories but their attention to the other value fields varies. To compare these cases, it was found that five projects were very close to the ideal of having an equally high emphasis on all the three value categories (Figure 39).

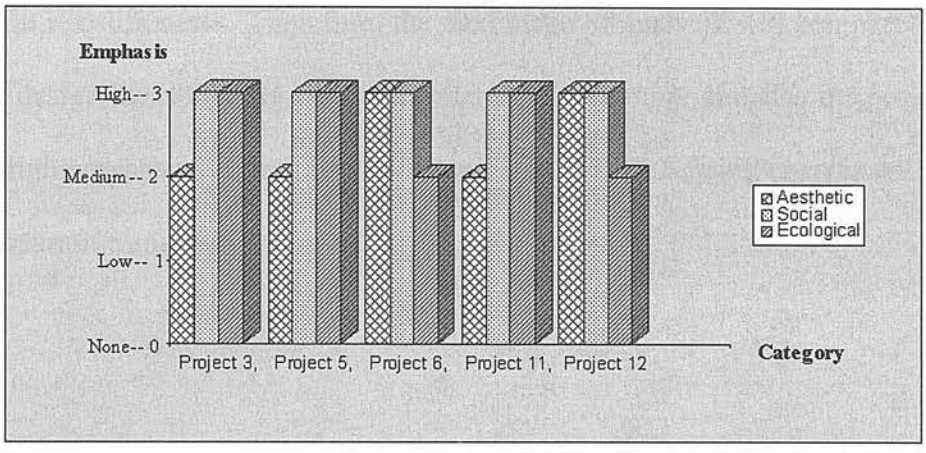


Figure 39: The case evaluation results of Projects 3, 5, 6, 11 and 12

Coincidently, of these five projects, no designer disregards the social aspect. It is in the aesthetic value category, which is less evident in three projects, and in the ecological category of another two cases, that the designers show less emphasis. In another cluster of case evaluations, the designers also put a high emphasis on two value fields but seem to neglect the third value aspect. Among this cluster, the aesthetic value instead of the social value becomes the most frequent category with a high emphasis (Figure 40).

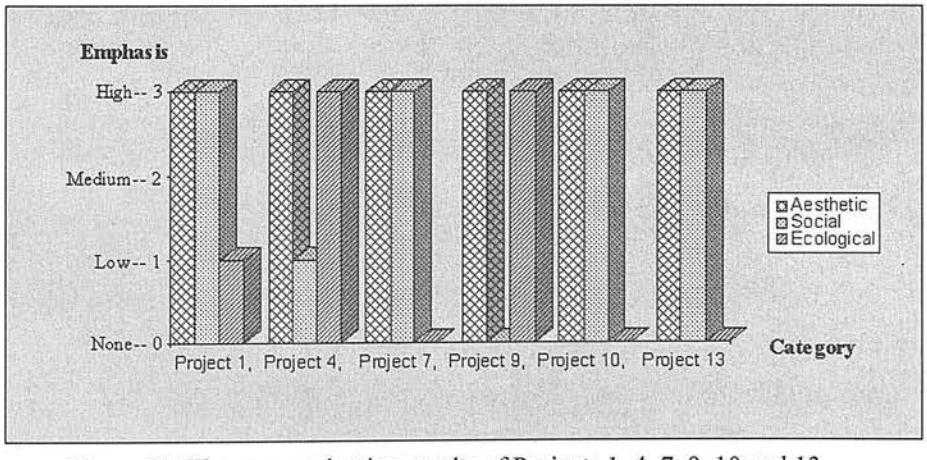


Figure 40: The case evaluation results of Projects 1, 4, 7, 9, 10 and 13

The conditions whereby landscape architects may pay more attention to a certain value category are intriguing but they are unable to be fully discerned at this stage of the analysis. Comparing the cases with high designer emphasis on the same value category helps to explore the patterns of the way different landscape principles are applied in real-life cases. Therefore, the next stage of analysis will compare not only the new design ideas that are similar or related to each other, but also the projects that have a high emphasis on the same value category. The following chapter will present this comparative analysis.

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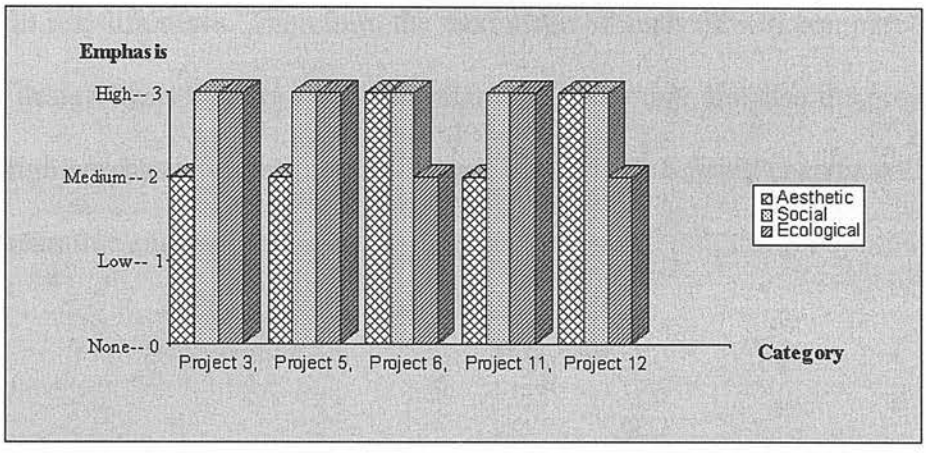

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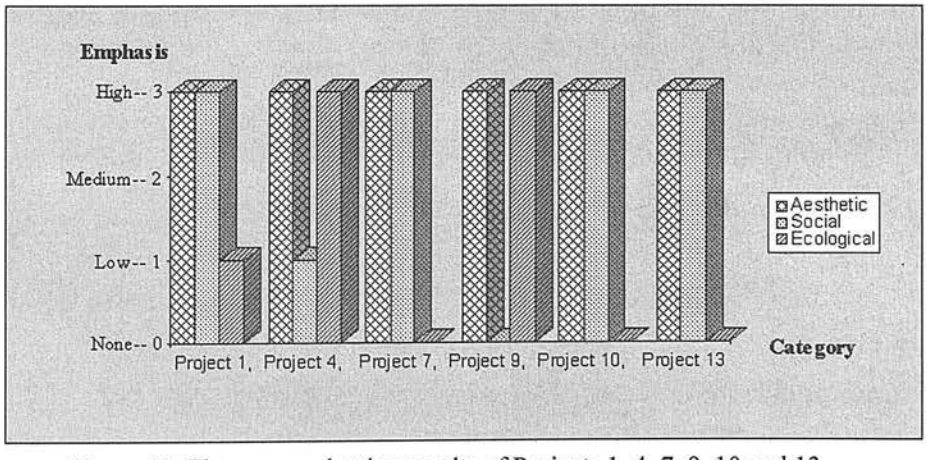

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6 COMPARATIVE ANALYSIS

6.1 Introduction

A comparative analysis will be presented in this chapter to follow up the indexing and sorting results shown in the previous stage of analysis. The design ideas identified in the sample cases will be compared with the paradigmatic discourses of Dr. Thompson and also with each other. The study purpose is to understand more about the various approaches applied in the sample cases in achieving the three landscape qualities. According to the grounded theory method, this analysis is the comparative process of the theoretical sampling, which is a further exploration into the concepts and categories that the previous analysis has suggested. By constantly comparing the similar and/or related concepts, significant information will be sifted out and explored to evolve the explanation of the studied phenomena. Such a gradually evolved explanation when maturely developed will become a so-called 'grounded theory'. Although this research is not about developing a theory, this comparative method will provide a channel to discuss the way different landscape value categories are considered in landscape practice. A close study into the meanings and variations of the identified design ideas will not only increase the depth of understanding of the core landscape values in terms of their application, but it will also give insights into the focuses and trends of landscape practice in Taiwan, the sample region in this research.

The analysis here will be conducted in two parallel directions. One is centred on the design concepts alone, while the other looks into the projects that show high emphasis on each of the landscape value categories. The detailed procedures and contents of these two comparative studies will be discussed in the following sections.

6.2 Comparing the design statements

The study of similar design ideas across the sample cases is, in effect, a constant comparison between the identified new ideas and the paradigmatic discourses and between the designs relating to those ideas that were not easily sorted. Accordingly, the comparison will have two continual steps. Firstly, the study focus should reflect back to the value discourses of Dr. Thompson and the design ideas noted as new to the discourse paradigm will be discussed. The comparison between these ideas and the paradigmatic discourse will show many interesting applications of some discourses and thus can enlarge the original scope and meanings that these discourses suggest. Then, these new ideas will be compared with the similar or related ideas found in other sample cases. Possible variations of the paradigmatic discourses will be discussed and suggested as 'new concept/s', which could present the nuance of the way those core landscape theories are understood and applied in the sample region, Taiwan, and will help the discussion of the Taiwanese landscape practice in the last stage of exploration. The following discussion will be presented along the aesthetic-social-ecological classification and then, the 'unmatched idea', the only one that cannot be sorted under any of the value categories, will be discussed.

6.2.1 Aesthetic category

The aesthetic ideas identified in the sample cases are closest to the paradigmatic discourses suggested by Dr. Thompson when compared to the other categories. Almost every relevant idea can be directly and easily referred to one of the aesthetic discourses, especially, when the designers reveal their ideas or concerns about beauty. 'Conservation', 'improvement', and 'accommodation' are the common approaches that most designers present to address their aesthetic values. However, when looking into the design details or referring to the design manner or expression, various ideas

and approaches will stand out. Although these ideas could still be classified under Dr. Thompson's aesthetic discourses, they actually produce richer meanings or have more connotations than the original discourses idea. In Project 1, 'Luo-Tung Sport Park', the local resource is regarded as a beautiful and representative material for design. One aesthetic idea outside the paradigmatic discourses is therefore noted as '*using local material for aesthetic expression*' (see Figure 41). This idea though has something to do with the concept of 'conservation' or 'artistic expression' is not identical to them. Thus, this idea will be left for further comparison between other similar ideas. Apart from this, many ideas that are sorted under the concept of 'artistic expression' are not merely about using symbolism or intellectual stories. Project 2, 'Landscape Construction of Ming-Chih Forest Recreation Area', is a good example that shows the designer's preference for using his imagination to arouse his design ideas. Not only is symbolism adopted in this design, but the use of Chinese painting as a design blueprint, and the idea of providing a special place to hear the sound of water (see Figure 43) are also regarded as other approaches to show 'artistic expression'. Therefore, using the imagination, appealing to sensate satisfaction, and relying on an image, a picture, a painting, a poetic or abstract thought, and even the philosophy of a culture, are all regarded as different approaches that designers may use to express their artistic pursuits or to perform their particular design style or aesthetic expression. Most of these approaches are more or less related to the concept of 'artistic expression' except the idea revealed in Project 6, 'Epoch Finance Mansion'

Figure 41 An example of 'using local material for aesthetic expression in Project 1: Rocks and stones in I-Lan County are regarded as beautiful natural materials to be used in the design as a reflection of the local characteristics. Photos were taken by the author in 2003.

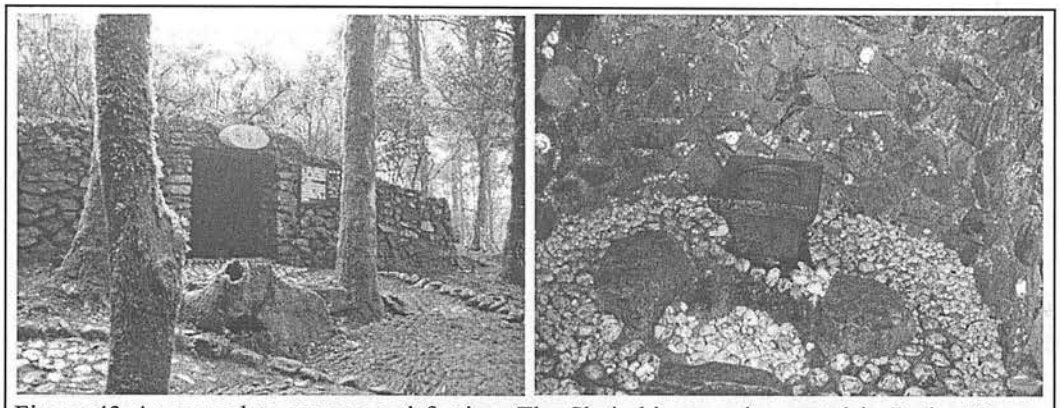

Figure 43 An appeal to sensate satisfaction: The Shui-chin cave is created in Project 2 as a place for the visitors to enjoy the transparent sound of the water dropping into a small basin. a) Using the natural topography of the site, the cave is dug out. The outside appearance of the cave looks like the entrance of a mine (Left). b) The interior space of the cave is rather small. Only two stone seats are provided near the stone basin. A few marbles are inlaid in the gaps between the stones of the surrounding wall (Right). Photos were taken by the author in 2003.

(see Figure 42) where it was found that when referring to the creation of visual interest and the pursuit of sensate satisfaction, the design statements provide no obvious relationship to the concept of 'artistic expression'. Thus, '*visual interest and sensate satisfaction*' was noted down to describe this design idea, which is identified in the concept sorting process as a new idea because it shows no direct link to any of the aesthetic discourses.

Figure 42 The idea of sensate satisfaction: In project 6, many design details are made for 'sensate satisfaction'. a) The water feature design is described as providing not only visual interest, but also to add a good feeling of a cool breeze and a pleasing sound of water flow (Left). b) The plants are designed with interesting forms and seasonal changes to please the eye (Right). Photos were taken by the author in 2003.

In the aesthetic category, only the two above-mentioned ideas are not directly related to the aesthetic concepts suggested by the discourse paradigm. The discourses of the aesthetic category are largely accountable for the ideas found in the aesthetic aspects

of design. The only thing lacking is that the aesthetic concepts of these discourses are not sufficiently inclusive to address all possible approaches that landscape designers may use to achieve their goals regarding beauty and expression. In addition, some design approaches may straddle two aesthetic concepts, especially those under the concept of 'artistic expression', which are often based on a certain concept of beauty, e.g. concepts of 'improvement' or 'conservation'. This will be discussed along the following comparison between relevant designs, or design approaches.

As discussed above, there are two aesthetic design ideas identified as new outside the aesthetic discourses. The first new idea, 'using local material for aesthetic expression', is marked in Project 1 when the designer refers to the use of natural stone to form the four positional deities because the stones are regarded as beautiful local material. This idea is only described in one of the sample cases, and no similar idea is found among the other projects. Yet, since it is presented along with the design idea about the four Chinese positional deities, it could also be regarded as part of that idea and reclassified under the aesthetic discourse of 'artistic expression'. Nevertheless, this idea may also have an implication for the concept of 'conservation' as the designer reveals an appreciation of natural beauty, even though the object is natural stone rather than natural scenery. By deliberately using local stone material as an approach to reflect natural beauty and express the idea of Chinese positional deities, it shows that the designer has a strong affection for local and cultural characteristics. Accordingly, the boundary of the related idea could be extended to include those that show a particular concern for local and/or cultural aspects of design. As it has been mentioned that ideas regarding the local and/or cultural aspect are not necessarily aesthetic values, the focus will have to be placed on those sorted under the aesthetic category. Thus, only three ideas, which are the idea of the positional deities in Project

1, the Chinese garden design idea in Project 2, and the Japanese garden design style of Project 7, are regarded as relevant and these ideas could be referred to as a temporary concept of 'cultural expression'. Since these ideas are identified under the concept of 'artistic expression' in the first place, 'cultural expression' will not be brought up as a new concept outside the discourse paradigm. However, this exploration could suggest that the discourse of 'artistic expression' includes more landscape approaches than story-telling and using symbolism.

As to the second new aesthetic idea, it is termed as 'visual interest and sensate satisfaction' in Project 6, 'Epoch Finance Mansion'. Ideas related to this design are found in more than one project but to appeal for visual interest and/or sensate satisfaction is often presented as a means to achieving the ultimate goal of improving the view or to serve as an artistic pursuit. In addition, except in this project, 'visual interest' and 'sensate satisfaction' are not applied together in the same project. Whether this new idea is also an idea in between two aesthetic discourses or is itself a distinct concept, requires a closer review. The discussion shall have a dual focus; one to be placed on cases referring to 'visual interest' and the other, on those showing a concern for 'sensate satisfaction'. Among the sample cases, ideas regarding visual interest or visual quality are found in four projects. Coincidently, all of them (except the one identified in Project 6) are identified as ideas related to the concept of 'improvement'. In Project 13, 'Fu-Ying Green Veranda', to make the site have a visual focus among the chaotic traffic arteries does, indeed, improve the view. However, in Projects 7 and 10 (see Figure 44), 'The Outdoor Garden of Pei-Tou Spring Hotel' and 'Roof Garden of Han-Min Technology Office Building', the use of plants to create a more attractive view and to enhance the dull background is more than about merely improving the view. To compare it with the idea presented in the

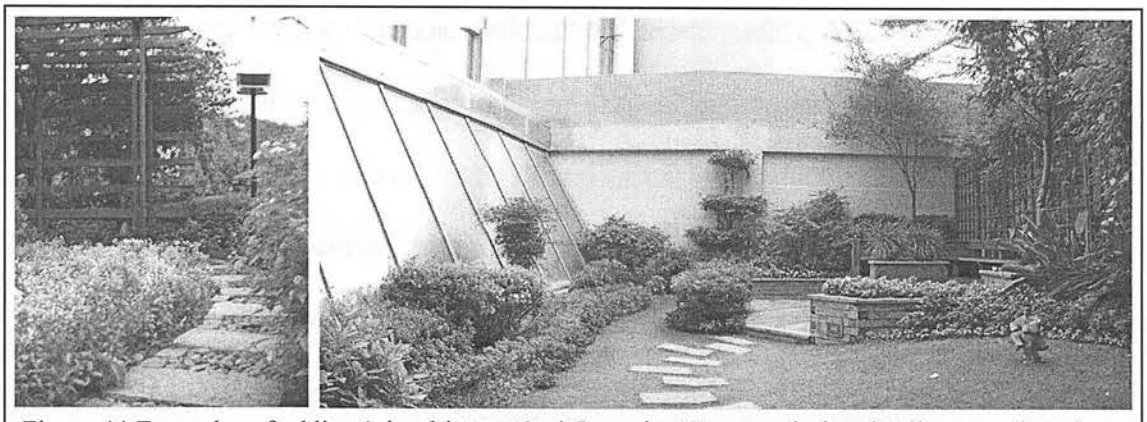

Figure 44 Examples of adding 'visual interest': a) In project 7, many design details prove that plants are used in a decorative way to create an image of a rich spectacle of colourful flowers so as to echo with the design theme of 'Spring' (Left). b) In project 10, in order to break down the cold and cheerless feeling of the concrete building structure, the designers use soft plant material to enhance the visual image of the roof garden (Right). Photos were taken by the author in 2003.

'Epoch Finance Mansion' project, the designer's intention to make the scene visually attractive and interesting is not merely related to the concern for beauty to improve the view, but it also reveals a sort of design expression. In this regard, when the designer's concern is about beauty, 'visual interest' can be used as one approach to improve the view, yet if the designer's purpose is to provide interesting design details, 'visual interest' can be related to the concept of 'artistic expression'. Now, the study focus should be turned to these projects that show evidence of a design idea regarding 'sensate satisfaction'. Only three projects provide related ideas: the design of Shui-chin cave in Project 2 (see Figure 43: 150); the creation of a rainforest in Project 9; and the idea of an open aquarium in Project 6. The first two ideas are sorted under the concept of 'artistic expression' as they are somewhat artistic in execution. The sound of water in the Shui-chin cave will calm the secular spirits, and in the rainforest, visitors will experience the pleasure of hearing the croaking of frogs and the chirping of birds and enjoy the fragrance of flowers and a cool breeze. As the ideas presented in these two projects are imaginative, they are regarded as artistic concerns. However, when compared with the ideas found in the 'Epoch Finance Mansion' project, such as the pleasing sound of flowing water, the interesting movement of the flow, and the

feeling of a cool breeze, 'sensate satisfaction' more vividly describes this particular design's concern for detail expression. The above discussions show that the two ideas (or design approaches), 'visual interest' and 'sensate satisfaction', are related to two different aesthetic discourses of 'improvement' and 'artistic expression'. To compare these two ideas, the similarity is that they are both about design details. When applied separately, there is no problem to sort them under either of the two aesthetic discourses. Yet, when applied together, as in the case of Project 6, it becomes difficult to say whether the approach is about improving the view or an expression of an artistic pursuit. To avoid the difficulty, this concern for design details could be regarded as an idea straddling two aesthetic concepts. Yet, when referring back to Project 6, while the selection of plants to create visual interest is identified under the concept of 'improvement', the visual emphases found in the water feature and lighting designs are not necessarily related to the idea of improving the view nor to the artistic expression. 'Sensate satisfaction' remains a better description for this design idea. As the concept of 'sensate satisfaction' is about appealing to visual, aural, olfactory, and tactile pleasures through detailed design arrangements, it is very much like the aesthetic version of the social concept 'amenity'. This is probably a special aesthetic design approach applied in the Taiwanese landscape practice. To differentiate this approach from those of the aesthetic concepts, improvement and artistic expression, a new concept will be suggested here. Since the purpose of this approach is to add on pleasure, '**pleasure**' instead of 'sensate satisfaction' will be suggested to address this concept. Accordingly, the ideas showing the designer's aesthetic concern for detail designs, either through the creation of pleasant views, the provision of fragrant smells, or the introduction of special textures, could all be included under the concept of pleasure as aesthetic pursuits that are related to the concern for beauty or expression.

6.2.2 Social category

For the social aspect of design, Dr. Thompson's social discourses are not as helpful as his aesthetic discourses. Many ideas that are identified as social concerns cannot be readily sorted under the three social discourses. The indexing process is therefore not so smooth and requires another indicator to recognise social ideas. Accordingly, the shared concern of the three social discourses, that landscape architects pay much attention to users' need, is used generally as a norm to sift out relevant ideas. In this way, when the designer shows a clear concern for users' needs or demands, the concern itself and its approach will be identified as a social idea. Consequently, ideas such as, '*provision of facility*', '*introducing new activity*', '*functional considerations*', '*quality of use*', and '*concern for use*' are noted to describe those concepts not readily sorted into social ideas. Some of these ideas overlap to a certain degree, but they are not identical. However, all these ideas could be connected to the concept of 'amenity'. This is because the ultimate objective of these ideas will satisfy and please the users, and thus provide them with better amenities and people's lives are improved as a result. Nevertheless, since the designers did not mention 'amenity' nor provide a statement regarding quality of life, it is inappropriate to directly sort them under the concept of amenity so as not to overlook the differences. For example, in Projects 14

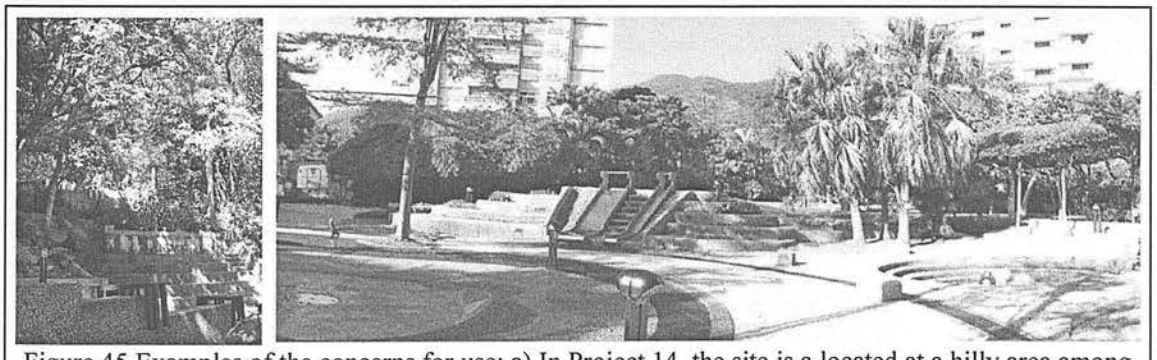

Figure 45 Examples of the concerns for use: a) In Project 14, the site is a located at a hilly area among few buildings and is designed to link up the disconnected places. The design also aims to serve as a shaded place for people to rest (Left). b) In Wei-Ke Nursery School, the design has a strong user demand and spaces need to meet the requirements of different uses. According to the design layout, more active activities will take place at the outer area of the site (Right). Photos were taken by the author in 2003.

and 15, 'The Outdoor Theatre of Shih-Hsin University' and 'Wei-Ke Nursery School'(see Figure 45), both designers place great emphasis on the social aspect of the design, by repeatedly talking about the project's potential use and the arrangement of the design, without mentioning 'amenity' at all. Since the focus is all upon 'use', 'concern for use' is noted to mark this particular design idea. Likewise, 'provision of facility' is noted in Projects 2, 5, 6, 7, and 12 to address the designers' consideration for users by deliberately providing facilities (see Figure 46).

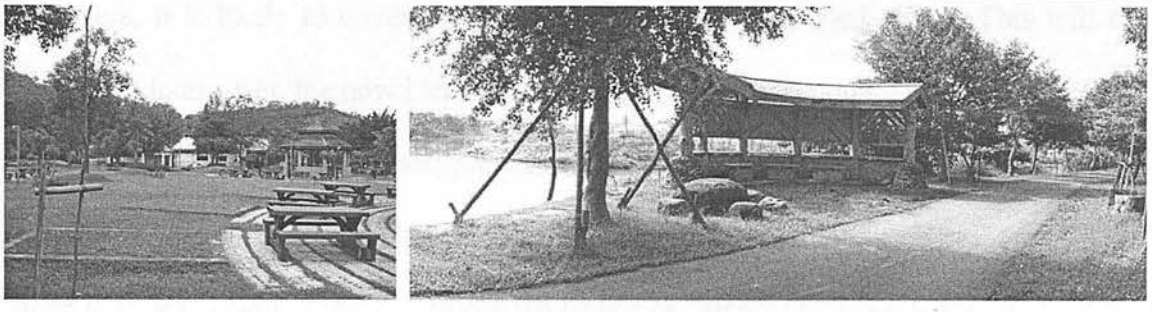

Figure 46 Examples of 'Provision of facilities' : a) Each camp unit is provided with a set table and seats in Project 5. A special pavilion is made for barbequing. All these faculties are provided to encourage use of the area of the valley plain so as to reduce the intensive use of the river area (Left). b) In Project 12, places for people to rest and enjoy the view are arranged with facilities. This photo shows one of the resting spots at the dyke top area of the project (Right). Photos were taken by the author in 2003.

The identification and classification of social ideas shows that the paradigmatic discourses at the social aspect are not particularly applicable to the approaches and ideas revealed in the Taiwanese landscape projects. Nevertheless, the concepts of 'amenity' and 'consultation and participation' are still recognisable in those cases. When an idea is related to 'consultation and participation', it is always easily identified and the methods used for consulting or public participation are all closest to those discussed in Dr. Thompson's research. In contrast, the concept of 'amenity' is more elusive and ill defined, as the notion of improving the quality of people's lives is too ambiguous to pinpoint ideas of this sort. In the sample cases, seldom did a designer directly mention 'amenity' in the design concept and no statement was found

to claim the designer's intention to improve people's quality of life. Nevertheless, there are implications of concern for amenity in many cases; on the contrary, only two cases show the concept of consultation and participation. Although 'amenity' is regarded as an empathetic approach to understand users' need, Dr. Thompson only refers to a particular method, i.e. providing psychological relief, and its ethical position as 'a utilitarian striving for the greatest good of the greatest number' (Thompson 2000a: 255). If the approaches to achieve 'amenity' can be made more inclusive, it is likely to cover the relevant social ideas as stated above. This will be discussed later when the new ideas are compared. As to the concept of 'social change', it is totally omitted from the sample cases. Since this concept is identified as a minor discourse in Dr. Thompson research, it is not surprising that the pursuit of social change is not shown in the Taiwanese landscape practice.

As has been mentioned, five notions, '*provision of facility*', '*introducing new activity*', '*functional considerations*', '*quality of use*', and '*concern for use*' are noted in the sorting process to describe the new social ideas shown in the sample cases. Except for '*quality of use*', the others are found in more than one project. Thus, the discussion will start from this idea and then other related ideas such as, '*introducing new activity*' and '*concern for use*' will be brought into the discussion. As these social concerns overlap to a certain degree, the comparison will be made as a sequential analysis. Since all these ideas are related to the concept of amenity in sharing an empathetic attitude toward the users' need, it is believed that these ideas reflect the same concept and must be close to the concept of amenity. As the discussion will present, this new concept can also be understood as a variation of 'amenity' that is largely adopted in Taiwan.

'Quality of use' is noted for a social idea found in Project 11, 'Pedestrian and Vehicle Traffic-Separation System for Yang-Chin Road of Yang-Ming-San National Park'. As the designer points out, one of the design goals that this project aims to achieve is to provide users with a high-quality recreational opportunity and experience. Although the designer does not give any reference or definition to explain the meaning and criteria for a high-quality recreation, it is not difficult to see that this idea is a concern for users as the designer wants to satisfy them by showing consideration for what they may do and experience on the site. While there is no detailed description about how the designer works to ensure a high quality recreational opportunity, some relevant thoughts are mentioned in the text. The idea of linking the present road system with a hiking track, and adding an educational purpose and interesting characteristics to the recreational activities are actually an effort to improve the quality of use (see Figure 47). Since the designer is much concerned with the positive recreational use of the site, the term 'quality of use' is coined to address this social concern.

Figure 47 The concern for 'quality of use': Project 11 refers to the provision of quality recreational experience and this could be perceived from design details. This photo shows an example of a resting spot and an interpretation signpost are arranged along the hiking track. The recreational quality is thus achieved in a sense. Photo was taken by the author in 2003.

This is the only project that directly refers to quality of use, but the focus is actually placed upon quality activities. In this regard, it can be compared with another similar idea, 'introducing new activities', which is also identified as a new social idea. The difference between the ideas of 'quality of use' and 'introducing new activities' is really just about the focus, as one is on 'quality' and the other is on 'use'. The idea of 'introducing new activities' is found in Projects 2 and 5, 'Landscape Construction of

Ming-Chih Forest Recreation Area' and 'Wu-Lao-Keng Scenic District'. Both of the projects are designed for a recreational purpose. In Project 2, a social concern is hardly identified, as the designer's emphasis is on the way different 'theme gardens' are created. The social concerns are not clear and can only be implied from the descriptions of detail facilities and the varied design themes for each sub-area of the site. While most of the theme gardens are described according to some poetic or artistic fantasy, the idea to design a labyrinth and a fern garden are, in effect, an act of introducing new activities. By using the site characteristics to set a labyrinth in the peacock pine forest and to provide trail and information-signposts in the area where an exuberant indigenous fern habitat exists, the designer provides the opportunity for users to have more recreational experience (see Figure 48). Therefore the designer reveals a social concern and this is noted as 'introducing new activities'. In Project 5, there is a more obvious introduction of recreational activities. With a concern for safety, the designer wants to encourage alternative activities to mitigate the concentrated over use of certain recreational areas (see Figure 46). However, while introducing new activities may result in an overall improvement in the quality of use, the designer's intention is not necessarily related to that concern. New activities may serve more as a strategy for an existing problem than a concern for quality of use. To compare the two new social ideas, 'quality of use' and 'introducing new activities', the similarity is that these ideas are all serving a recreational purpose of the above three projects. Accordingly, these new social ideas

Figure 48 An example of 'introducing new activities': 'Chueh Garden' is designed in Project 2 to provide more recreational opportunities for the potential users. This photo shows the wooden-framed deck and interpretational signposts mentioned in the design concept text. (Photo was taken by the author in 2003.)

reflect the purpose of the design. In this regard, another new social idea, 'concern for use', is much related to these two ideas, different from them only in that the purpose of the projects is not recreational.

In the Projects 14 and 15, 'The Outdoor Theatre of Shih-Hsin University' and 'Wei-Ke Nursery School', both designers reveal a strong social concern, which though it may have an implication for the concept of 'amenity', it is simply a concern regarding use. As has been discussed, the idea underlying the design of the outdoor theatre in Shih-Hsin University is to provide its users with a multi-functional space. All the detailed descriptions in this project show the consistent efforts of the designer to meet users' needs regarding their potential use of the space. 'Concern for use' is therefore identified as a new idea accounting for the social concern that is purely about the purpose of the project or the use of the site. This idea is expressed more clearly in the project of Wei-Ke Nursery School. Since that project is unique in the demands made of the use of its space by different users, the design is laid out in concentric circles to divide and connect spaces of varied uses. Likewise, the descriptions of the detail designs are centred on how different usage requirements are taken into consideration. In addition, the word 'use' is mentioned six times in the whole design concept text in this project, emphasising the designer's care for the use or function that the design could offer. Although the idea of 'concern for use' has nothing to do with recreation and is not relevant to 'introducing new activities' and 'quality of use', it is an idea reflecting the designer's concern for the activities, which occur on the site and the best use of the space to meet potential users' requirements. This then will link to the other two social ideas of 'provision of facility' and 'functional consideration' which are design approaches often used in the sample cases to show the designers' concern for user need.

'Provision of facility' is identified in projects when detail designs or objects are provided with regard to a particular use. It is often found that the designer reveals his/her concern for the user by considerately providing facilities in the design without giving a reason as to why it is significant or worthy. However, it is hard to tell if the provision of a facility is from necessity or just thoughtful consideration. In some cases, the designers show no emphasis on the social aspect of the design but briefly refer to the constructions or facilities that are set up for certain activities. Therefore, while the idea of providing a facility is an empathetic approach to satisfy the users, it cannot be directly related to the social concept of 'amenity'. To compare the projects (i.e. Projects 2, 5, 6, 7, 12) where the idea, 'provision of facility', is identified, it was found that there is a direct link between expected activities that may occur on site and the provided facilities that are prepared to support the use. Since the use may not be necessary, when mentioning the supply of facilities, the emphasis of the designer is more centred on what may occur, instead of what has happened or is obviously required. This then is what distinguishes this idea from a similar idea, 'functional consideration'. In Projects 7 and 12, 'The Outdoor Garden of Pei-Tou Spring Hotel' and 'Tung-San Riverside Dyke Construction', the expected problems or requirements of certain activities, such as having an outdoor bath (see Figure 49) and the use of a motorboat on the lake, are pointed out and taken into consideration in the detail designs. Although the detail designs also refer to the facilities, the work is based on a concern for functional requirement rather than

Figure 49 Provision of facilities as a design requirement: In Project 7, unisex outdoor baths are arranged in a private space behind the bamboo fences while the children's bath is set in a semi-open space. This photo shows that the facilities are provided for certain functional considerations. (Photo was taken by the author in 2003.)

expected activities. 'Functional consideration' is thus also marked as a new social idea to address the slight difference when talking about facilities. Nevertheless, both these ideas are much concerned with activities that potential users may enjoy on the site.

So far, all the new social ideas have been discussed. All these ideas are more or less related to the activity that users would experience on the site, whether it is expected, required or already in existence. If the ideas of 'provision of facilities' and 'functional consideration' are regarded as actions or approaches to meet the users' need for a certain activity, the ideas of 'quality of use', 'introducing new activities', and 'concern for use' could be understood as the aims or functions that the project wishes to achieve. What the new social ideas present is landscape architects' concern for the service that the design or project intends to deliver. As was stated earlier, since all these design ideas will ultimately affect the quality of people's lives, the concept they reflect, though not directly referring to 'amenity', is closely related to it. Yet, '**service**' is still suggested as a new social concept to address this slight difference so as to help study later the landscape practice in Taiwan.

6.2.3 Ecological category

The use of 'ecological' rather than 'environmental' to name or describe this value category is a deliberate choice to emphasise the frequent use of the word 'ecology' in the examined cases. In addition, it also helps to avoid the confusion caused by the wide usage of the term 'environment', as in the Chinese language, 'environment' has a broad connotation and it is not necessarily 'environmental' but 'aesthetic' and 'social' as well. Although 'environment' and 'ecology' are not interchangeable words, in the field of landscape architecture, 'ecology' or 'ecological' is often used to express environmental concerns. Dr. Thompson also chose the word 'ecology' to term the

environmental value field in his tripartite framework. It is therefore considered appropriate to use 'ecological' instead of 'environmental' to name this category and, during the indexing process, it proved a more helpful word than 'environment'.

In the ecological category, Dr. Thompson's environmental discourses, except 'health/integrity', are quite applicable to account for the relevant ideas found in the sample cases. In most cases, when the designer shows an environmental/ecological concern, the ideas are easily related to the concepts of 'harmonisation' and 'sustainability'. However, designers always present more than simply an ethical stance and many detailed descriptions are offered to account for the way ideas about the environment or ecology are taken into consideration in the design. Several ideas showing an environmental concern but not directly sorted under the paradigmatic discourses are termed as, '*respect for ecological structure*', '*ecological education*', '*concern for living beings*', '*ecological aesthetics'*, '*detail regulation*', '*ecological planting design*', and '*concern for constructional detail*'. Almost all of these new ideas are concerns for detail design manipulation, which involves technology and regulation, with two exceptions, 'ecological education' and 'ecological aesthetics'. In terms of technology, some designers reveal a particular concern for the use of living material, especially plants, in their projects. For example, in Projects 1, 4, 6, and 9, either a new ecological technology is invented or a conventional one is employed to ensure a suitable environment for plants, birds or fish to live and grow. The ideas behind these projects are not all identical and some are related to the concepts of 'harmonisation' and 'sustainability'. Thus, only three new ideas are identified, which are '*respect of ecological structure*', '*concern for living beings*', and '*ecological planting design*'. A similar idea, '*concern for constructional detail*', is marked in Project 14. Another new idea, setting regulations with regard to environmental issues,

is found in Projects 3, 5, and 12. In Projects 3 and 12, this idea is just mentioned briefly as a principle applicable to other development or for use on the land. It is considered therefore appropriate to sort them under the concept of 'harmonisation'. However, in Project 5, 'Wu-Lao-Keng Scenic District', the use of detail regulations to restrict certain activities for pollution control cannot be simply referred to as the environmental aspect of the discourse paradigm. 'Detailed regulation' is therefore noted as a new idea (see Figure 50). 'Ecological education' and 'ecological aesthetics' are both identified in Project 4, 'The Second Car Park Design of Wu-Lao-Keng Scenic Camp Site'. These two ideas are not purely ecological concepts, as they seem to straddle another value field; one is ecological-social and the other is ecological-aesthetic. These two ideas will be discussed later in the following comparison between the related design ideas.

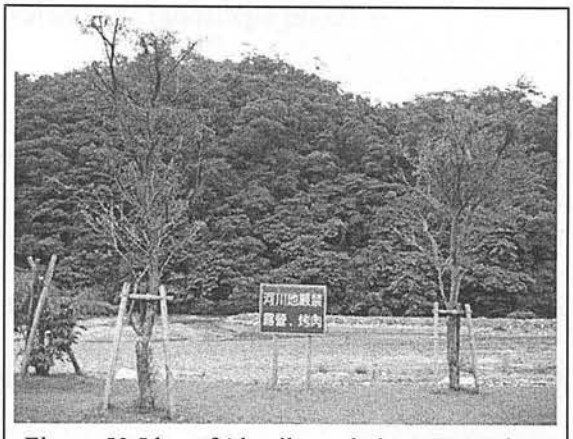

Figure 50 Idea of 'detail regulation': In Project 5, the designer refers to the use of regulations to prevent pollution. Since these regulations are rules set to restrict certain use of the site, they are hardly perceived in the design expression. The only evidence the research found on the site is a signpost set up to inform the users that no barbequing or camping is allowed at the riverside area. (Photo was taken by the author in 2003.)

Although seven ideas are noted as new to Dr. Thompson's environmental discourses, most of the ecological/environmental ideas found in the sample cases are related to both the concepts of 'harmonisation' and 'sustainability'. Even in 'The Second Car Park Design of Wu-Lao-Keng Scenic Camp Site' project, where three new ecological ideas are identified, it is evident that these two environmental concepts are still the dominant concerns. Dr. Thompson's environmental discourses therefore are largely applicable to address the environmental values of landscape architects in Taiwan.

Nevertheless, as happened in the social category, the minor discourse of the ecological category, 'healthy/integrity', is not found in any of the sample cases. This is another value concept that is totally omitted in the Taiwanese landscape practice.

The study of the new ideas will start from 'ecological education' and 'ecological aesthetics', which are identified as not pure ecological concerns. Both of these ideas are identified in Project 4, 'The Second Car Park Design of Wu-Lao-Keng Scenic Camp Site', but one is more like a design principle, while the other is about detail design. 'Ecological education' is mentioned in the idea of the carrying capacity of the car park. In order to ensure a quality recreation, the designer is much concerned about the number of tourists on the site. By controlling the parking spaces, the designer wishes to avoid overusing the natural resource. The concern for an appropriate level of usage, in terms of man and his environmental relationship is called 'carrying capacity' here. According to the designer, 'the concept of carrying capacity is greatly influential in ecological education' (design concept text translated by the author). Although the idea regarding carrying capacity is, in essence, the ecological concept of harmonisation, the concern for recreational quality and ecological education is related more to the new social idea, 'quality of use'. 'Ecological education' is there regarded as an idea related to both the social and ecological categories. When comparing this idea with those referring to an educational function of the design in other sample cases, i.e. Project 5 and Project 11, the concern of education is itself an expression of the new social concept, service. To say that 'ecological education' is a social idea with an ecological concern is not inappropriate. Likewise, the idea of 'ecological aesthetics' is more an aesthetic concern than an ecological one. This idea is identified in the drainage design. The designer describes two types of drainage forms as a means to introduce the concept of ecology. Nevertheless, no statement about ecology is

found in the descriptions of the drainage design. In addition, the designer's emphasis is only placed on the visual form. The designer also states that 'the design concept comes from the natural form of Wu-Lao-Keng Stream' (Ibid.). The forms of both drainage types are to symbolise the different shapes of the riverbank that resulted from the water erosion of a turbulent flow or a slower flow of the stream (see Figure 51). At first glance, the drainage design seems to reflect an environmental/ecological concern, as the designer sees it as a way of introducing an ecological concept. However, after a closer review, there is no distinct ecological concept at all. The drainage design can, at best, be regarded as an artistic expression of an environmental pursuit. This idea is termed 'ecological aesthetics', but the focus is not ecological. Therefore, this idea will be reclassified under the aesthetic discourse of artistic expression.

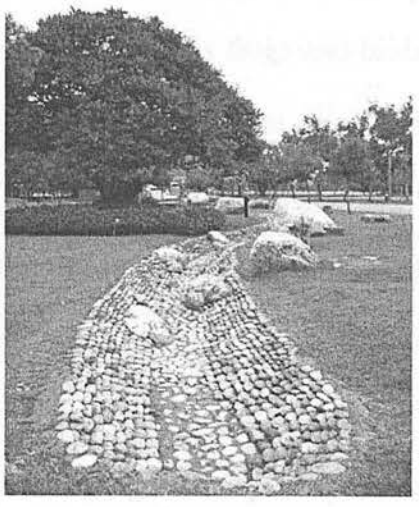

Figure 51 Drainage design in Project 4: This photo shows of drainage Type B, which symbolises the section of a river where flow is slowing down. This idea is regarded as an example of ecological aesthetics and is reclassified under the aesthetic discourse of artistic expression. (Photo was taken by the author in 2003.)

Apart from the two ideas above, there are five other new ecological ideas identified in the sample cases. Since these five new ideas all involve detail design manipulations, it is difficult to find similar ideas or examples among the sample cases for comparison. In addition, these ideas are related, as they are all approaches used in design details to achieve an ecological purpose. The comparison will therefore be made between these five new ideas. The similarity between these ideas is about technology and regulation. In most cases, the detail technology involves the handling of live objects, including plants and animals. But, plants are often the focus and are adopted widely as a

strategy or an approach to construct a healthy and firm environmental structure. In Project 9, 'Palm Spring', the designer pays great attention to the planting design. By mimicking a tropical vegetation environment, the designer intends to create the epitome of a tropical rainforest where many living creatures, such as frogs and birds live. Whether the design is successful in creating an artificial, tropical rainforest habitat is out with the concern of this comparison. The virtue of this example is in showing that landscape architects may use 'planting design' as a technique to attain a desired ecological/environmental structure. This can also be seen in the 'concern for constructional detail' in the 'The Outdoor Theatre of Shih-Hsin University' project. Here, the problem of water erosion is identified in the design concept text. As a response, the designer refers to the strategy of water and soil maintenance, building a retaining wall and at the same time, adding more plants to conduct the water flow. Although in this project, the ecological idea is only implied, the description of the construction details reveals the designer's concern for the environmental structure.

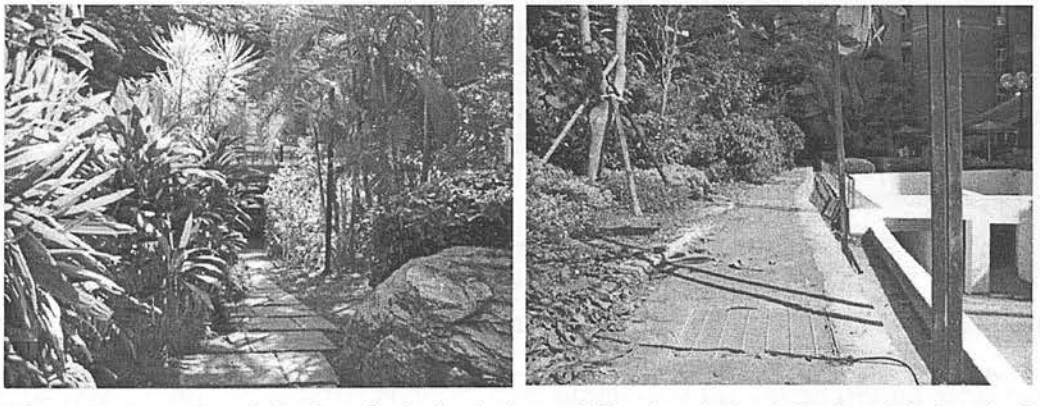

Figure 52 Examples of detail ecological technique: a) Planting design in Project 9 is described in the design statements as an approach to achieve a balanced ecosystem. As the photos show, plants are used in different levels to create a nature-like condition for living creatures, such as birds and frogs (Left). b) In Project 14, as soil erosion causes a problem of flooding in the underground car park, plants are largely used to help water and soil maintenance; in addition, a water escape canal and a retaining wall are built at the border of the site where the car park is adjacent to it. (Photos were taken by the author in 2003)

Among these five new ecological ideas, only one, 'detail regulation' in Project 5, is not concerned with plants or other living beings. Although the regulations to restrict recreational activities and to select developing areas are much related to the ecological concept of harmonisation, they are, in effect, an ecological technique that helps to direct the act of development or conservation. The selection of an activity area that is guided by the regulations is not only out of a concern for the proposed new activities, but is also a response to the environmental structure of the site. While the idea of 'detail regulation' is not about the technology of handling living beings, it can be regarded as a technique that deals with the non-biological aspect of an environmental structure. Since the five new ecological ideas are related, in terms of their focus on detail techniques concerning either the biological or non-biological structure of the environment, they could be regarded as different approaches of the same concept. Apart from the emphasis on technical manipulation, these ideas are all concerned with the environmental structure. Therefore, '**structure**' is used to represent this new ecological concept.

6.2.4 The only unmatched design idea

As the discussion has presented so far, while the sample cases reveal that the application of the core landscape principles in Taiwan is slightly different from Dr. Thompson's value discourses, the three main value categories of landscape architecture are broadly similar enough to accommodate the varied design ideas of the examined Taiwanese projects. There is only one idea that cannot be referred to in the three value categories; and it is identified in Project 10, 'Roof Garden of Han-Min Technology Office Building', where the designer refers to the concern for the loading capacity of the building structure. Although the concern is obviously a social one with its focus on safety, it is, in effect, a technical issue and thus was not directly sorted

under the social category. Thus, a new idea, '*technical requirement for the loading capacity*', is presented to address this concern as an unmatched idea that is not readily classified according to the aesthetic-social-ecological value division. This idea will have to be compared with other related ideas to understand its possible relationship to the three main categories and the meaning this idea connotes in landscape design. This comparison will be presented as follows.

In the indexing and sorting process, the idea about a building's loading capacity not only appears unfamiliar but also seems unrelated to any of the three value categories. Since the idea is an act responding to a technical requirement, it is recorded accordingly as '*technical requirement for the loading capacity*', and both 'technical requirement' and 'loading capacity' are noted to address the focus of this special design idea. Among the sample cases, no similar idea was found; therefore, to compare it with other design ideas is very difficult. In addition, as this idea is a secondary design idea, which is mentioned in the design statements, without sufficient explanation, it is impossible to suggest any distinct concept. Nevertheless, this is not to say the existence of this new idea can be dismissed. The relationship of this idea to the aesthetic-social-ecological schema still has to be explained. Since this idea is not accommodated in the discourses paradigm, and no similar ideas are suggested from the sample cases, the boundary for relevant ideas must be extended. Accordingly, this idea will be compared with those related to either 'technical requirement' or 'loading capacity' and the new concepts suggested so far will be used to assist this comparison. When referring to ideas of 'technical requirement', the suggested new ecological category, 'structure', is found relevant and it is possible to address and contain this idea. This will be briefly discussed below.

Project 10 is a roof garden design. As discussed previously, the designer has to consider the building structure and its loading allowance when creating a roof garden design. The concern for loading capacity was regarded as a response to an unavoidable technical issue. Since it is about technique, it can be compared with other ideas that are also technical concerns. This idea then can be related to the new ecological concept 'structure' because it is about detail environmental techniques. The major difference is that the structure of concern in the roof garden design is a man-made one, but in the other cases, it refers to the biological and/or non-biological structure of the land. To say that the concern for the loading capacity of a building is an ecological idea seems a ridiculous statement. Nevertheless, it is, in effect, a sort of environmental concern. This comment is not a glib statement to force the unmatched data to become matched but rather, it is a reasonable inference. In a roof garden, the site of the design is without doubt an artificial building body. The ground of a roof garden is often the concrete ceiling of the top floor of a building, rather than a normal soil ground on the land. The environment of a roof garden is therefore different from a normal landscape project. It is appropriate to say that the building itself is the environment for a roof garden. The concern for the building's loading capacity is therefore equal to the concern for the carrying capacity of the environment. Usually, a landscape designer will be cautious when selecting plants for a roof garden design because some plants, such as bamboo have robust roots, which are capable of breaking the concrete building's ceiling. It is a pity that the designer of Project 10 doesn't mention this concern. If the selection of plant materials is discussed with regard to building structure, it will be more evident to say the concern for the building structure in a roof garden design is indeed an environmental concern and it can even be reasoned as an ecological concern. However, since the idea about loading capacity in Project 10 only focuses on the building's loading allowance, to argue that careful

selection of suitable plants for a roof garden design shows an ecological concern, does seem to be overstating the case. Hence, the researcher compares this idea with other ecological concepts to seek other evidence to support the re-configuration of this idea under the ecological category.

Among other ecological ideas identified in the sample cases, one idea, which is sorted under the discourse of 'harmonisation' in Project 4, can be related to the new idea of 'technical requirement for the loading capacity'. In Project 4, 'The Second Car Park Design of Wu-Lao-Keng Scenic Camp Site', the designer mentions the concern for the carrying capacity of the site to accommodate parking space and tourist numbers. Although the designer does not explain clearly what the term 'carrying capacity' means, it is not difficult to see that this concern is an idea of harmonisation, which seeks reconciliation between the negative human impact on the land and the protection of natural resources. Since 'carrying capacity' is introduced in this project as a demand to restrict the use of a natural resource, this idea is an act to prevent the overuse of the land. In addition, it is also regarded as a demonstration of the designer's concern for ecological education. In Projects 4 and 10, both the designers are concerned with the 'capacity' of the site; only the focus is different. One is a concern for the proper use of natural resources and the other is about a technical issue. Nevertheless, both are seen as ideas regarding the environment of the site, either natural or man-made. Nevertheless, the concern for loading capacity in Project 10 is different from the idea of the 'carrying capacity' of Project 4, in that it is not about 'harmonisation' or 'ecological education' but about building structure and construction technology. Therefore, this new idea can only be realigned under the new ecological concept of 'structure'.

6.2.5 Summary

As the discussion has presented so far, no new concept is suggested outside the three main landscape value fields. Although there is an unmatched new idea, it is possible to relate this idea to the ecological category. Nevertheless, it must be admitted that at first glance, it seems quite unreasonable to regard this exceptional idea as an environmental concern. In addition, this new idea cannot be directly linked to the word 'ecology' or 'ecological'. It is not appropriate to say that the new idea of 'technical requirement for the bearing capacity' is an ecological idea. However, if it is seen more from a conceptual perspective, it is possible to say that this new idea is an expression of a new ecological concept, 'structure'. To reclassify this idea under the concept 'structure' is more reliable than to suggest a new value category from this idea. Therefore, it is considered appropriate to rearrange this unmatched new idea under the new ecological concept of 'structure'. While Dr. Thompson's discourse paradigm proved a useful tool in identifying design ideas in the sample cases, not all the discourses are applied in Taiwan. Both the discourses of 'social change' and 'health/integrity' are totally omitted in Taiwanese landscape practice and by and large, the discourse of 'participation and consultation' is also not used. In addition, the design approaches applied in Taiwan are slightly different from those of the discourse paradigm. To address these differences, three new concepts are suggested and they are presented in each of the categories, i.e. the concept of 'pleasure' in the aesthetic category, 'service' in the social, and 'structure' in the ecological category. These new concepts will be further explored in the case studies in the next chapter, which will discuss the strengths and weaknesses of Taiwanese landscape practice. Here, the comparative analysis will explore the conditions for each core landscape principle when taken into consideration in landscape practice.

6.3 Comparing the projects of quality/ties

The comparison between the design ideas shows that many landscape approaches have been adopted in landscape practice, yet it does not provide explanations or patterns about the way a certain landscape value is taken into consideration in landscape projects. The three landscape value fields of the aesthetic, social, and ecological have been identified as the core landscape theories. In order to create good landscape works, landscape architects will have to consider these three quality aspects. Although these three landscape values are equally important, they do not receive equal emphases in most landscape projects. The previous study of the sample cases shows that no designer paid equal attention to all three value categories. According to the case evaluation results, most Taiwanese landscape designers stress one or two value fields; even if they do refer to all three values, the emphasis is not the same. Nevertheless, about half of the sample cases (eight out of fifteen) indicate that landscape designers do use ideas of all the three value fields in their works (see Figure 53). This research believes that there is a great potential for landscape architects to create quality landscape projects with all of the value aspects, which is an ideal trivalent design as Dr. Thompson calls it, as long as the designers review their use of each landscape value principle and understand the conditions these values emphasise.

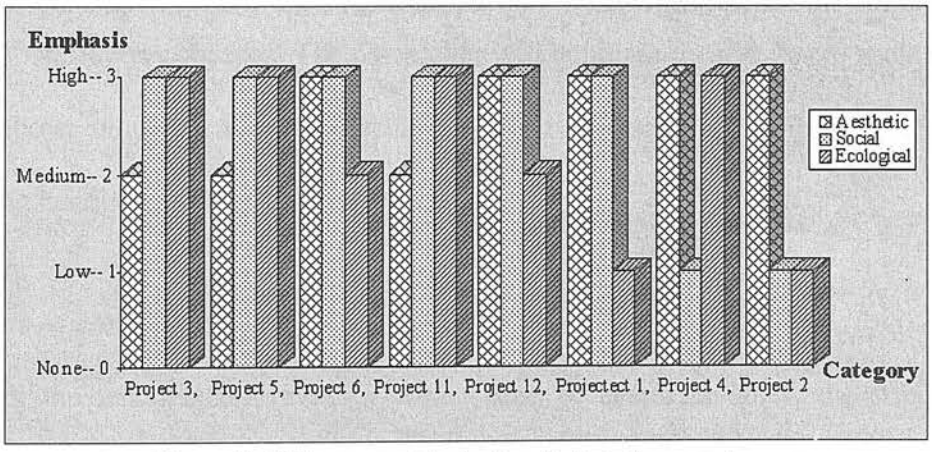

Figure 53 Eight uneven trivalent projects in the sample cases

In order to explore the way each landscape value is concerned, the analysis focus here will be placed upon the projects where the value categories are highly emphasised. Therefore, the following discussion will present a comparison between cases, and again, it is made on the aesthetic-social-ecological classification. The researcher asks the basic questions of 'who', 'what', 'when', 'where', and 'why' to learn about the conditions that may provoke designers to consider a certain value in their design. The questions such as, 'Who or what would be the subject of concern?', 'When and where would the designers take action?', 'Why would landscape architects reveal this value?', are constantly asked, while cases with a high score at a certain value category are compared.

6.3.1 The aesthetic category

Among the fifteen sample cases, there are ten projects with a high score at the aesthetic category. As to the other five cases, only two projects do not show any designer emphasis on the aesthetic aspect of design. The rest, though showing less emphasis on aesthetics, still reveal a recognisable concern for this value field and are given the grade of medium. It is obvious that landscape architects are much concerned with the aesthetic aspect of design in their project. In order to study the application of aesthetic value in landscape projects, the analysis here will focus on the ten projects with high aesthetic concerns. The researcher will compare these cases to seek answers to the above inquiries and the discussion will be presented accordingly, along the following headings.

Subject/s of concern

Although the ten projects reveal a wide range of aesthetic ideas, the subject/s of concern in each case presents less variety. The main subjects of concern can be

generalised in three types. Firstly, most designers talk about their idea of beauty when revealing their aesthetic concerns. Even though the designer's perception of beauty varies in different cases, their major aesthetic concern is still centred on the pursuit of beauty or on the act of beautification. In all ten projects, the designers reveal more or less their appreciation of beauty. Some designers speak directly of their appreciation of certain scenery, and some work actively to beautify the scene, while some are cautiously fending off an unpleasant view. All these correspond to Dr. Thompson's aesthetic discourses of 'Conservation', 'Improvement', and 'Accommodation'. Though the expressions of the designers are different, the focal point is all about their visual impressions of the existing site and its surroundings. Whether the site is beautiful or not and whether the intervention will add credit to or ruin the existing beauty, the subject of concern is about beauty. The second concern is about the imagination or creativity of the designer. This concern corresponds to the aesthetic discourse of 'Artistic Expression'. Many aesthetic ideas are stated because they will enhance the view as well as having been inspired by a story or a certain theory. For example, the Chinese and Japanese garden design principles are mentioned in some sample cases to help the designers create a special scene. In addition, as Projects 1 and 9 show, the designers either make up a story, or give an ideal image to make a theme for their design. Even if there is no extraordinary story to tell, the designers still can use their imagination to symbolise a certain form or an image, like the drainage design in Project 4 and the sculpture in Project 7. Finally, the designers deliberately seek for sensate satisfaction as their aesthetic pursuit, which reflects the new aesthetic concept of 'Pleasure'. Some designers talk about their care for pleasant sounds, fragrant smells, and a nice sense of touch, along with their concern for visual attractions. Indeed, beautiful scenery or a pleasing view is not often solely the centre of aesthetic concern. Designers also express their aesthetic values through a concern

for 'meaning' or 'sensation'. Although few designers mention directly their concern for sensate satisfaction, many are consciously stressing it by the selection of plant texture, paving material, and the design of water flow etc. to make a sensationally pleasant atmosphere. As has been discussed previously, the subject of concern in the aesthetic value category is threefold i.e. *Beauty*, which could be regarded as a synonym of visual appreciation in this research, *Imagination*, which is about the story, meaning, or even a certain theory behind the ideas, and *Sensation*, which is an atmosphere of pleasant sounds, smells, or feelings.

Action point

The second inquiry is about when and where the designers will exercise their aesthetic value in their works. Of the ten projects, all of the project designers tend to describe at length their design details, such as the form of the design layout, the visual focal point, and the colour and texture of the plants, to express their aesthetic ideas. In some cases, while the site is divided into different areas, the aesthetic ideas are usually brought in to suggest a theme for each sub-area. For example, in Project 2, the site is divided into five major areas according to the site characteristics and location. In order to give each sub-area a special theme, the designer resorts to an image, a painting, a story, and the unique scenery of the site to gain inspiration. Although in most cases, the designers use aesthetic ideas for design themes and details, the aesthetic value can also be demanded of the site planning. Project 1 shows that the site plan is plotted according to the image of a green-charm coming from the distant mountain by the leading of a series of artificially formed green hills, the 'Jade Hills'. However, of the ten cases, the use of an aesthetic idea to guide the site plan is only found in this project. Therefore, this study would conclude that most landscape architects exercise their aesthetic values in the design details or when there is a call for a design theme.

Nevertheless, there still is room for a landscape architect to use an aesthetic value to help in site planning.

Intention / motivation

Now, the inquiry will consider the reason landscape architects use aesthetic values. When looking into the purpose behind their use of aesthetic values, it is interesting to see that no clear purpose can be discerned from the designers' statements for exerting certain aesthetic ideas. Some designers point to the problems of the site as an unpleasant place to stay, and thus, aesthetic ideas are used as a means to solve that problem. This kind of application can be found in Projects 10 and 15, as the scene of the two projects is either too dull or chaotic. Apart from these, the descriptions of aesthetic ideas in other projects are presented as having a purpose in their own right and they are provided to account for the meaning the designers want to express in their design. That is to say, the aesthetic pursuit is the channel for landscape architects to express their thoughts and to exert their creativity. Although the thought and creativity of a designer may be influenced by mainstream theories, the preference of the clients or users, or their own educational or cultural background etc., the designer himself/herself can still endow the design with certain meanings or inform a particular design style. The purpose of the aesthetic pursuit then, is for the designer to define what he/she would like to express and perform in his/her work.

6.3.2 The social category

As to the social category, the evaluation shows that a very high percentage of designers in the sample cases are much concerned with the social aspect of design. Eleven out of the fifteen projects are given a high grade of designer emphasis in the social category. Only in one case i.e. Project 9, is the social concern totally omitted in

the design concept text. The other three cases present very subtle designer concern for the social aspect and are all graded low. It is interesting that no project is given a medium grade in this category. It seems that if the designer ever refers to a social idea in the project, the social value will always be emphasised; but if no social concern is consciously mentioned, the designer could almost neglect the social aspect of the design. The following discussion will focus on projects of a high grading in the social category to learn about the conditions where landscape architects pay a lot of attention to the social aspect of the design.

Subject/s of concern

In the social category, the subject of concern is quite obvious for each of the eleven projects, and the designers also present a great consensus at this point. The subject of concern in the social realm has a dual focus. One is about people; the other concerns the function or service of the design. In all eleven projects, the designers share the same concern for the potential users of the site. However, as the potential users of different projects are not always certain, not all the designers will place their focus on the users' requirements. In those cases where there exists a specific user group, the subject of concern will be centred on people. The other kind of concern focuses more on the function of the design rather than on users' needs or demands. In the former type, the projects often have a target user group; and in some cases, the dominant users are invited to get involved in the design process. As Projects 3 and 13 present, since the project was designed particularly for the local community, local people's opinions and expectations played an important role in determining the function of the project. Other cases, such as Projects 7, 10, 14 and 15, also show a great concern for the need and demand of potential users. Although the users were not consulted or asked to participate in these cases, the designers still were able to predict user need,

according to the specific characteristic of the users, such as kindergarten kids, university students and staff, and the customers of the hotel. Therefore, it is fair to say that the designers' subject of concern at the social aspect of design is very much about people, or in other words, the users of the site. Even in those cases where no particular users can be defined, the designers are still keen to design for people. The only difference is that these designers will have to define first the function of the design so as to meet users' needs in general. This can be seen in Projects 1, 5, 6, 11, and 12. In those projects, the designers shifted slightly the subject of concern from people to functional requirements. Whether the project is defined as a sport park, a scenic resource for outdoor recreation or a walker's track around a certain area, the designers all work for the design to function as it is expected. Since the concern for function is also related to user need, the subject of concern in the social category could be simply stated as 'user need'. However, as the concern has a dual focus, it should be noted as: *People*, who will be the users of the site, and *Function*, which is about the service that the project aims to provide.

Action point

When landscape architects present a social idea in their designs, they usually carry it out through both site planning and the detail design. The eleven projects show that the designers can apply their social ideas from the more conceptual stage of stating objectives, to the more tangible work of detail arrangements. In almost half of the eleven cases i.e. Projects 5, 7, 13, 14, and 15, the social ideas are revealed both in the guiding principles of site planning, and in the forms or details of facilities. In Projects 3 and 11, the designers only present their social concerns as planning objectives and principles, without stating the detail performance. In contrast, the designers of the remaining four cases tend to present their social ideas in detail designs, such as in

their concern for the topography in Project 1, the provision of street furniture and concern for lighting in Project 6, and the arrangement of resting places in Project 12. It is obvious that landscape architects are comfortable when using social value in their work, whether it is used in the planning context to determine the goal or to provide principles, or when it is applied in the design details to define the form or select materials. It seems that there is no certainty that landscape architects will exercise their social values. Indeed, landscape architects may have no inclination whatsoever to use social ideas in their work. In other words, social values are widely applied by landscape architects in both the planning and design scope.

Intention / motivation

Why landscape architects express their social concern in design statements is the discussion focus here. Again, the inquiry will have to be adjusted to focus on the designers' purpose of stating the social ideas in the design concept text. It is reasonable to say that the reason landscape architects state their social concern is because they care for people. However, that is not the answer suggested by the case analysis. Among the eleven projects, no designer ever shows that a social idea is suggested from his/her care but from identified need. This is not to say that a designer's social ideas do not reveal his/her care for people, but rather that to present social concerns in a design statement is not to express the designers' consideration for the users. Actually, most designers do talk about their social ideas when some user requirement has to be met. In some cases, the social ideas even emerge as the solutions to the malfunctions of the site. Therefore, landscape architects often express their social concerns to indicate a problem or a need and to suggest the treatment. Another case for bringing out the social concern is when no specific user group is identified. As discussed earlier, designers would place their focus on the function or

service of the project. Accordingly, social values would be presented to define and state the project objectives. Some cases also show that the designers may use social concerns as guidelines to determine the function and service of the project. To conclude, the reason that landscape architects present a social idea is because the objectives of the project have to be stated or because there are certain requirements to be met.

6.3.3 The ecological category

Compared to the other value categories, the ecological aspect is given less emphasis by Taiwanese landscape designers. Only one third of the sample cases have a high grade placing in the ecological category. Among the other ten cases, half of them present no ecological concern at all, while two have a medium grade and the rest are graded low. It seems that an ecological value is not applied in many Taiwanese landscape projects. Even if the landscape designers do have an ecological concern, they may not pay a great deal of attention to it. In some cases, those given a low grade, imply an ecological concern, even if they are not consciously stating the point. However, to study the way landscape architects use ecological ideas in their work will involve focusing on the cases with a high grade. Therefore, the following discussion will present only the analysis of the five cases, which were given a high grade in the ecological category.

Subject/s of concern

At first glance, the subject of concern in each of the five projects is quite diverse. The water feature of the land, the natural recourse of the site, the geographic structure, and a particular plant habitat etc., are the focus of the ecological concern in different projects. Of the five projects, the word ecology or ecological is used in four cases.

This seems to suggest that the concern for topography features or living beings is, in its own right, a concern for ecology. Then, does this imply that ecology is the subject of concern of this value category? However, what the designers have focused on here is much less than the full scope of ecology. Ecology may not be a suitable description to address the subject of concern presented in these cases, especially, in Project 11, where the designer uses the natural environment and natural resources, instead of ecology to state the focal point. The subject is therefore more related to nature than to the ecology within nature. In response, the subjects of concern in the five cases are generalised into two clusters. One focuses on the topographical features, while the other is concerned with the health of living beings. In Projects 3 and 5, the designers' ecological ideas are expressed in their concerns for the special features of the land, particularly on the natural water feature of the site. Although, in Project 5, the designer mentions that the river's life depends on water quality and ecology, the ideas she presents still focus on the physical structure of the land rather than the biophysical aspect of the whole environment. Therefore, it is appropriate to say that when landscape architects present an ecological idea, the subject of concern could be placed on the physical features of the land alone. Another case is presented in Projects 4 and 9, where the designers' focus is on the health of vegetation. Some technique or planting principle is applied to ensure that the vegetation has a suitable environment to grow and thrive. In these two cases, the ideas are presented as an ecological design approach that helps to handle the living materials used in the project. Although the focus of these two projects is on plants, it can also be applied to other living beings. In Project 9, the designer also mentions birds and frogs in his ideal image. Thus, the creation of a tropical vegetation habitat may imply that the designer's concern is not only for plants but also for other living beings. It is better to say that another subject of concern in the ecological category is about living beings rather than plants alone.

As to Project 11, the designer only talks about nature in a broad context, without focusing on physical features or living beings. Since the designer refers to the whole environment and the valuable resource of nature, the concern should cover both the physical features and the living beings of the land. Therefore, it is wise to say that the subject of concern in the ecological value category is about nature, which has two focuses, i.e. the physical features of the land and the health of living beings.

Action point

Most ecological ideas found in the five cases are presented as a guideline or principle to state the designer's attitude towards the development on the site. Therefore, there is a tendency for landscape architects to express the ecological value at the planning phase of their work. Four out of the five cases show that the designers use their ecological ideas to define or restrict the site plan. For example, in Project 5, the site is divided into different zones, according to the geographical features of the land. At some zones, the activities are very limited or even forbidden, because it is regarded as damaging or inappropriate to use the land in certain ways. In Project 3, it is also emphasised that the development of the town must be based upon restricting pollution control and as an act of environmental conservation. As such, the designer puts the environmental quality as the priority consideration, above other design requirements and ideas. While most landscape architects bring up their ecological concerns to set the bottom line for their intervention on the land, some designers also present their ecological ideas in detail designs. In Project 9, the designer employs an ecological planting principle to design a tropical vegetation habitat; and in Project 4, a new type of brick is introduced for the grass of the parking space to grow and to replace the dead ones. Although both cases focus more on the technical issues, they demonstrate the possibility of using ecological ideas in detail designs. However, it should be noted

that in most cases, landscape architects present their ecological values in site planning or the planning aspect of their work rather than in detail designs.

Intention / motivation

As the five cases show, most designers present their ecological concern to tell people that a certain boundary to use the land much be drawn. In Projects 3 and 11, environmental conservation is emphasised as the prerequisite for any development on the site. The designer in Project 5 even refers to a strict regulation of pollution control to be applied in the case of environmental conservation. Therefore, it could be said, that landscape architects often express their ecological values to define the boundary of human intervention on the land. Apart from setting up the boundary of development, some designers also use their ecological ideas to demonstrate a way of making a more self-sustaining or long-lasting design. This can be seen in Project 4, in which the designer introduces a new type of 'grass-planting brick' based on an ecological concern to solve the recurring problem that grass dies easily and the dead section of grass is difficult to remove. In Project 9, the designer also talks about the use of an ecological planting principle to make a harmonised and self-sustaining system, which is a balanced and sustainable design. Although in these cases, the designer does not mention long-term maintenance of the design, the descriptions of their ecological ideas do suggest that ecological designs benefit the future management and maintenance of the project. In Project 3, the designer refers to the idea of sustainability and stresses that the concern for environmental conservation will benefit the future generation. It is therefore believed that landscape architects present their ecological ideas because there are long-term issues to consider.

6.3.4 Achieving the ideal

As the comparison between cases is complete, this section will present a discussion concerning the possibility of making the ideal landscape project, particularly in the Taiwanese context. The results of the above comparison provide useful information for landscape designers to self-examine their use of certain landscape values. Yet, before discussing the application of this information to assist landscape designers in making quality landscape works, the eight sample cases showing designers' concerns in at all the three value categories should be examined to discuss the failure of the Taiwanese landscape designers to achieve the desired quality landscape project. The table Dr. Thompson used (Table 18) to discuss the possibility that a trivalent design can be practised will be applied to assess the uneven trivalent sample cases.

	Aesthetic	**Social**	**Environmental**
Radical (Ecocentric)	Conservation?	Social change	Health/Integrity
Reformist		Consultation/ Participation	Sustainability
Neutral	Improvement Artistic Expression 'Good Design' Conservation Accommodation		
Technocentric Accommodation	Conservation Accommodation	Amenity	Harmonisation

Table 18 A classification of landscape architectural discourses. Based upon O'Riordan 1989 (Thompson 2000a: 287)

According to Dr. Thompson (2000a: 287), a classification of landscape architectural discourses is based on the distinction made by O'Riordan between technocentric and ecocentric tendencies in environmentalism. 'The constellation of discourses at the heart of mainstream professional practice, consisting of the Discourses of Accommodation (aesthetic), Amenity (social), and Harmonisation (environmental), are located in the conservative or technocentric band' (Thompson 2000a: 287). As the

classification table presents, only in the technocentric category, is no blank cell left for each of the three value columns. Therefore, it is suggested that a trivalent design is possible to achieve at this level. Dr. Thompson reasons that it is also possible to make trivalent designs in the reformist and the radical manner. However, as the existing discourses of his empirical study do not suggest a reformist aesthetic concept, landscape architects should advance technical innovation, such as articulating a more identifiable ecological aesthetic, to reach a reformist mode of a trivalent design. As to the radical mode of trivalent design, although it seems possible it could happen in terms of theory, Thompson (Ibid: 288) admits that 'for radicals, the profession of landscape architecture is a limited vehicle'. An amendment to Thompson's table (Table 19) is made, according to the comparative analysis of the sample cases to reflect the Taiwanese landscape practice. As the table presents, the row of the radical mode is taken off, as the discourses of social change and health/integrity are not found in the sample cases. In addition, the three new concepts i.e. 'pleasure', 'service', and 'structure' are added to the table.

	Aesthetic	**Social**	**Ecological**
Reformist	Artistic Expression?	Consultation/Participation	Sustainability
Neutral	Improvement Artistic Expression *Pleasure* Conservation Accommodation	*Service*	*Structure*
Conservative	Conservation Accommodation	Amenity	Harmonisation

Table 19: The amendment made on Thompson's trivalent modes

The original revised table also has a blank cell in the aesthetic column of the reformist mode. However, as the ecological aesthetic idea identified in Project 4 is relocated under the concept of 'artistic expression', it is believed that landscape architects could present a critical attitude towards technical innovation through their artistic pursuits.

Therefore, to put 'artistic expression' in the reformist realm is considered appropriate. According to the modified table, no radical trivalent mode is suggested but rather a neutral mode is possible. It is therefore thought that the trivalent designs found in the sample cases may present the reformist, neutral, and conservative trivalent modes. However, as Table 20 presents, most designers do not hold to an unchanging stance but possess varied perspectives towards different value fields. In some cases, the designer even shows an inconsistent attitude within the same value realm. It is unlikely then to find a distinct trivalent mode for the eight trivalent designs. Although the conservative and neutral modes can be perceived in some cases, no pure reformist, neutral, or conservative trivalent mode is identified. As the landscape designers of these sample cases are not holding a consistent attitude in their design, the failure in making the ideal quality landscape projects is probably a result of this inconsistency. If this is the case, how then will the potential contentions of the three value fields caused by an inconsistent attitude of the designer be eased? The following discussion will compare the way different values are used in landscape projects to explore possible contentions that may exist between the three value fields.

	Aesthetic concepts	Social concepts	Ecological concepts	Trivalent mode
Project 3	Conservation Improvement	Amenity Consultation/ Participation	Harmonisation Sustainability	Conservative &?
Project 5	Conservation Improvement	Amenity Service	Harmonisation Sustainability Structure	Conservative & Neutral &?
Project 6	Improvement Pleasure	Amenity Service	Sustainability Structure	Neutral &?
Project 11	Conservation	Amenity Service	Harmonisation	Conservative &?
Project 12	Conservation Improvement Accommodation	Amenity Service	Harmonisation	Conservative &?
Project 1	Artistic Expression	Amenity	Structure	?
Project 4	Accommodation Artistic Expression	Amenity	Harmonisation Sustainability Structure	Conservative &?
Project 2	Artistic Expression	Amenity Service	Harmonisation	?

Table 20: Sorting the uneven trivalent designs of the sample cases against possible trivalent modes

The results of the comparison between sample cases regarding the conditions that landscape architects may apply a certain value in their designs are compared and presented in Table 21. The last row of the table, which is noted as controller, is added as a comment to annotate the distinctiveness of each value field. Once the conclusions of the analysis are added to the table, it is clear that the three value fields play different roles in the process of creating a landscape project. The subject of concern in each value realm is not the same and the motives behind the application of each value are also dissimilar. This could be the reason that landscape architects can hold inconsistent attitudes when working on the same design. Since design ideas emerge from different considerations, they may not all be in harmony with one another. Yet, this is not to say reconciliation between conflicting ideas is unlikely.

	Aesthetic values	Social values	Ecological values
Subject of concern	Beauty Imagination Sensation	People Function	Land features Living beings
Action point	More about detail design Partially used in planning	In both planning & design scopes	More at planning aspect Few in details
Intention / Motivation	Performing design styles Enduing meanings	Stating project objectives Defining potential needs	Restraining development Long-term management
Controller	Designer or Client oriented	User oriented	Environment oriented

Table 21: The conditions each landscape value/principle is emphasised

As the comparison made in Table 21 shows, the three values are carried out in slightly different design phases. The sample cases suggest that ecological ideas are often used as fundamental principles to draw up an outline or a general plan for the project. In contrast, aesthetic values are more often applied in detail designs to define the form or to create a theme. In both planning and design phases, social ideas are introduced to refocus on the function of the project and the potential users' needs. Although the use of the three values is not restricted to a certain design phase alone and the whole design process cannot be clearly separated into two simple phases, the comparison

does indicate that there is a general trend to apply different values in landscape projects. This may also suggest the possibility that landscape architects can skilfully avoid the problems of the conflicting ideas suggested from the different value concerns. For example, if an aesthetic idea conflicts with an ecological one, the aesthetic idea may be disregarded if it challenges the fundamental principles of the whole design or if it is against the site plan, which is outlined according to the opposite ecological idea. Likewise, if an aesthetic idea conflicts with an ecological one in its detail design, but does not cut across the limitations set by ecological principles, it is then possible for the ecological idea to give way and allow the aesthetic idea to be used in the same project. As to the social value, though it is usually involved in both the planning and design phases, it is not much concerned with setting principles or defining forms. Thus, it could be said that the social ideas are, in effect, carried out in between the phases of planning and detail design. In this way, when social ideas conflict with ecological or aesthetic ideas, which ideas should be adopted will depend on whether the conflict is about a fundamental issue of the planning principles or a technical issue regarding the detail manipulations.

If the discussion reflects the reality, there should always be a certain range in the design process for each of the three values to be centralised and emphasised. In addition, within the range of one particular value field, the value can be dominating and other values will have to respect and submit to it. However, this is not to say that there is a hierarchical order in the three value fields. The comparison in Table 21 is also insufficient to suggest whether any one value is superior to another. The table is simply used to present the conditions that each value is applied in landscape projects. Although planning is regarded as a prior stage to design, the values that are held at the planning phase of landscape projects are not necessarily superior to those at the

design stage. The fact that these values tend to be used in different design phases may just suggest that each of the three values has its place in the design process and none shall be ignored or surpassed. In order to present the special range where each landscape value field is dominating, a conceptual diagram is suggested (Figure 54) and it is also inspired by Dr. Thompson's tripartite framework. A focused diagram (Figure 55), which shows different segments of what Dr. Thompson calls univalent, bivalent, and trivalent designs, is made by focusing on the overlapping areas of the tripartite framework (Figure 56). According to the analysis of the sample cases, while the three landscape values could all be used in different phases of a project, each of the three values tends to be emphasised in different work scopes of the profession. The focused diagram of the tripartite framework re-occurs along a spiral flow, representing

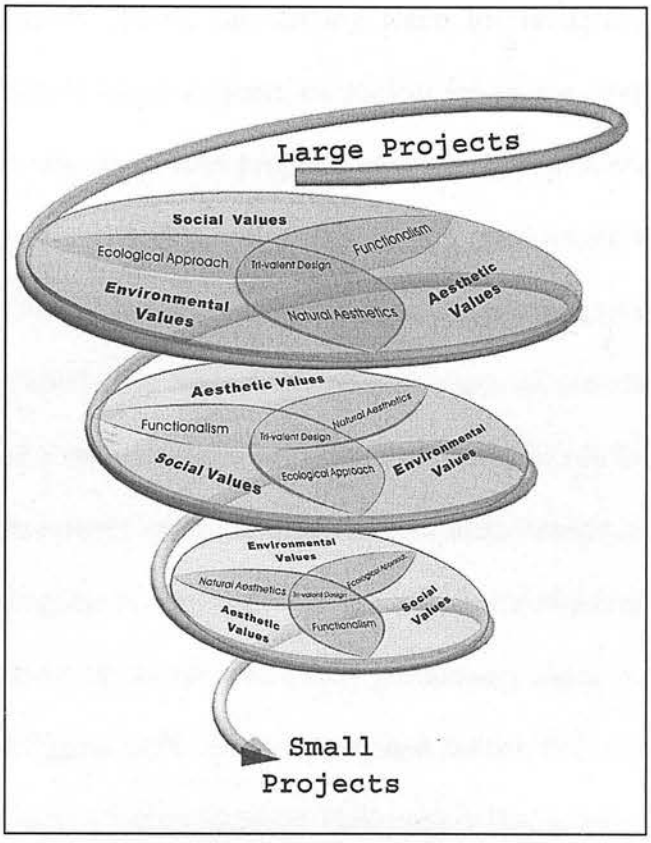

Figure 54 Use of the three values at different project scales

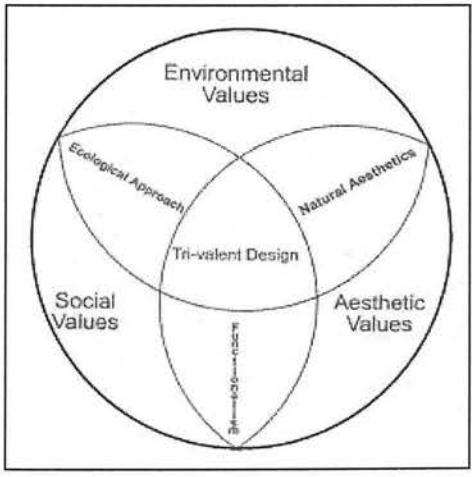

Figure 55: The focused diagram

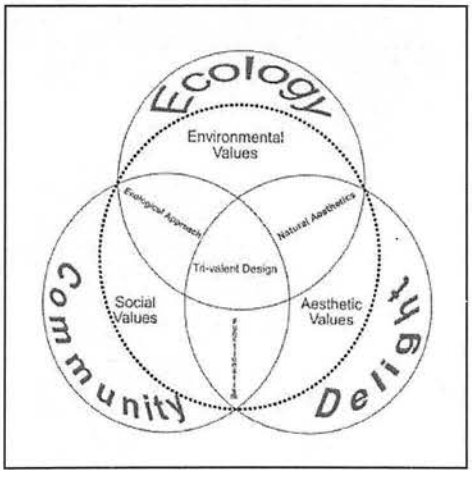

Figure 55: The tripartite framework and its focused area

different project scales. As this diagram shows, the driving force for landscape projects alters at different project scales. In larger projects, ecological values are more dominant to drive the designers' concerns. In smaller projects, however, design ideas are often driven by aesthetic values. Nevertheless, according to this diagrammatic presentation, the trivalent works are still possible at any scale of landscape projects. This diagram can also be used to explain the way different landscape values are applied in landscape practice. Yet, as a diagrammatic presentation, it should not be literally interpreted. In addition, as the sample cases are only selected from Taiwan, it is possible that the theory of this diagram is only valid in the Taiwanese context. Nevertheless, this diagram does remind landscape designers, particularly those in Taiwan, to examine their use of the different landscape values in their works, and also to help them feel less daunted or confused when pursuing an ideal quality landscape.

So far, the exploration into the core landscape theories and their applications in real cases is complete. The following study will return to the Taiwanese context, and a traditional in-depth case study will be conducted to discuss the landscape practice in Taiwan. Four projects are selected for this further exploration and will be presented in the next chapter.

7 LANDSCAPE PRACTICE IN TAIWAN

7.1 Introduction

This chapter will present the final exploration of this research. In the previous chapters the shared landscape architectural principles had been studied, and their universality and applications were also investigated through a comparative study of a number of Taiwanese landscape projects. Since these sample cases were awarded as 'good landscape works' in a national competition in Taiwan, by reviewing a few of them closely, it will help our understanding of the Taiwanese landscape designers' use of the core landscape theories, such as the reasons for their selections of certain landscape approaches, or the inherent restrictions of and/or requirements for landscape practice in Taiwan. Thus, four cases are selected from the fifteen sample cases for this in-depth case study. There is no specific requisite for the case selection here; yet, those having the potential to provide more information are most desirable. Accordingly, cases of a larger size and which were designed for a greater number of users were selected. This is because in a project of large size, the designers may have had to consider more factors that exist on or are related to the site. In addition, when the project is for the majority of the Taiwanese people, rather than a limited group of users, the design will probably reflect greater and potentially diversified user demands. In the sample cases, only four projects, i.e. Projects 1, 2, 3 and 5, have the project size over ten hectares. These four cases are designed for public use; two of them demand an entrance fee while the others have free-access. These cases then were chosen for the following in-depth case study. Each case will be reviewed with its project brief and background, information about the site and relevant plans, the embodiment of the design concepts; then a discussion and comment will be presented to conclude the study. These four cases will be reviewed in turn, according to their project size, from the smallest to the largest.

7.2 Case 1: Landscape Construction of Ming-Chih Forest Recreation Area

Project brief and background

Ming-Chih, which is also called Chih Tuan, is a high altitude lake at the west mountainous area of I-Lan County. The planned Ming-Chih forest recreation area, which covers the lake and its surrounding forestland, belongs to the government sector of the Veterans Affairs Commission (V.A.C.) under Executive Yuan, the highest administrative organisation of Taiwan. V.A.C. is a sector in charge of many governmental forestry and agriculture projects. As the policy for forestry management had been extended and focused on multi-purpose management, the development of forest recreation areas became an important target. According to V.A.C., the new policy was made because of the rise of the average income in Taiwan has encouraged the public to travel during holidays and weekends. As such, there is a demand for more recreational sites. In response, the 'Tourism Bureau of Ministry of Transportation and Communication started plan to turn this area into large size forest recreation model area'[10]. The Ming-Chih project was then initiated and C. T. Kuo was commissioned to present the planning and design proposal.

Ming-Chih was seen as of great recreational potential, in terms of the site character and location. Sitting within a high-altitude forestland and embraced by the surrounding mountains, the lake, Ming-Chih, was itself a small wetland with only a hectare water surface, which is gradually getting smaller due to the natural processes. Sooner or later, the lake is going to dry out if no external interference is applied. As the scenery of the lake is splendid, it is a pity to let it die away without any maintenance or intervention to turn it into a scenic spot for visiting and recreation. In

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[10] A statement cited from http://www.mingchih.com.tw/eng/HISTORY.HTM

addition, the location of Ming-Chih, which is at the west outskirt of I-Lan, is adjacent to both Great Taipei Metropolis and Tao-Yuan County (see Figure 56[11]). It is therefore considered an ideal site to develop a recreational resort for the northern region of Taiwan because its location is close to several administrative counties and could serve the great population in north Taiwan.

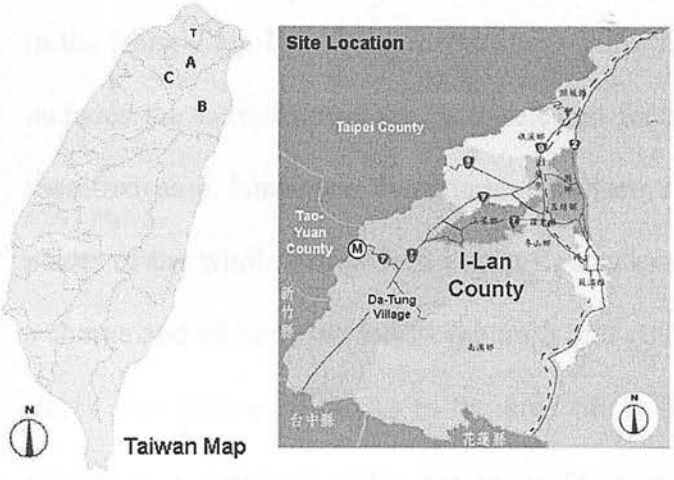

Figure 56 The site location and its significance: The Ming-Chih Forest Recreation Area, which is marked as 'M' in the map, is located at the western border of the Da-Tung Village in the I-Lan County. It is adjacent to both the Taipei and the Tao-Yuan Counties. Thus, it has the potential to be developed as a holiday resort for people living in northern Taiwan. As the Taiwan map shows, the northern counties are all its serving area.
A: the Great Taipei Metropolis, T: the Taipei city; B: the I-Lan County, C: The Tao-Yuan County.

The original land-use type of the Ming-Chih area is not specified for leisure activities, such as hiking and sightseeing, but for forestry works of plantation and nursery. Although a youth centre and few pavilions are within the site, to make it a forest recreational area demands more detailed plans and designs. The area for leisure and recreational activities must be allotted and managed to ensure the new development and intervention upon the forestland will be appropriate. Thus, an area of 917 hectares forestland, which is set aside from the adjacent seven plantation fields around the lake, Ming-Chih, is marked out for the development of the Ming-Chih Resort and the MCFRAP (Ming-Chih Forest Recreation Area Plan) is then proposed. The 'Landscape Construction of Ming-Chih Forest Recreation Area', is just an 11-hectare detail design

[11] These maps are edited by the author. Their original resources are:
http://travel.network.com.tw/main/travel/; http://www.ntut.edu.tw/~s9370068/travelmain.html

of the whole Ming-Chih development project. Accordingly, this design project has to comply with the plans and restrictions set by the MCFRAP. This design therefore has a straightforward objective that is to make the site more attractive and suitable for recreational use.

The site and relevant planned areas

In the Ming-Chih Forest Recreation Area Plan, an 11-hectare area that surrounds and includes the lake, Ming-Chih, was selected for a special landscape design and was specified as a landscape construction project. Apart from this selected site, other places of the whole Ming-Chih Forest Recreation Area are open to the public without a charge and visitors can follow the trails and guideposts to enjoy the beauty of nature freely (see Figure 57[12]). As to the area of the Ming-Chih surroundings, it is to be created as a fairyland within the forest for people to appreciate and enjoy. Thus, it demands skilful design and careful management. As a result, a decision is made to restrict access; accordingly, visitors will have to pay to get into this area.

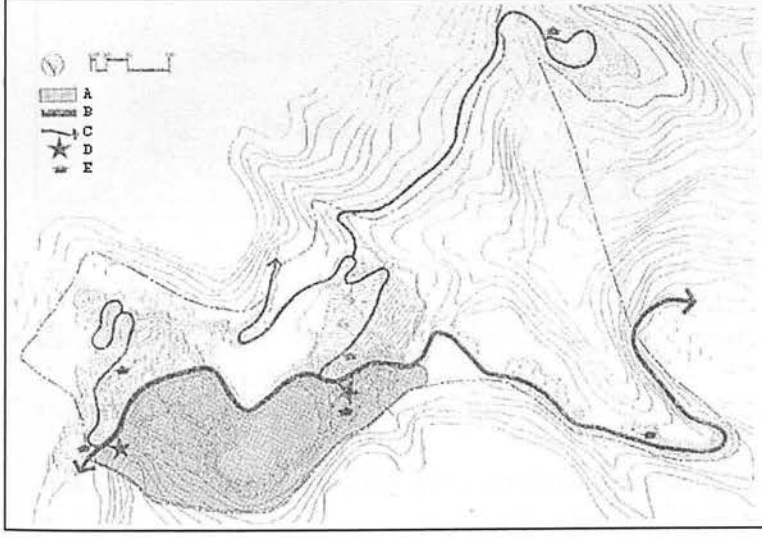

Figure 57 Site selected for the landscape construction project: The dark shaded area in this figure is the site selected for the landscape construction project, which is 'A', according to the legend. Tourists will be charged to enter this area. B is that slightly thicker line, which has two arrows at both ends to signify the main traffic road that goes across the Ming-Chih Forest Recreation Area. C: the secondary service roads. D: the planned stations where the entrance fees will be collected. E: the places where control centres were built.

[12] This figure is from the Planning Report of the Ming-Chih Recreation Area page 166 and is edited by the author.

The Ming-Chih landscape site is part of the area that accommodates facilities for forest recreation, which is known as the 'recreational facility area'. The Forest Recreation Area Development and Management Regulation states that, according to the site characters, the forestland within the forest recreation area could be classified into four types of use i.e. camp area, recreational facility area, landscape preservation area, and forest-ecology conservation area. While permitting the development of recreational facilities, the regulation also restricts its development and emphasises that the area marked for recreational facility cannot exceed ten percent of the total area of the whole forest recreation site. As the forestland within the Ming-Chih Forest Recreation Area is basically a man-made forest upon a lofty mountain, only two types of land-use divisions are made, i.e. the recreational facility area and the landscape preservation area (see Figure 58[13]).

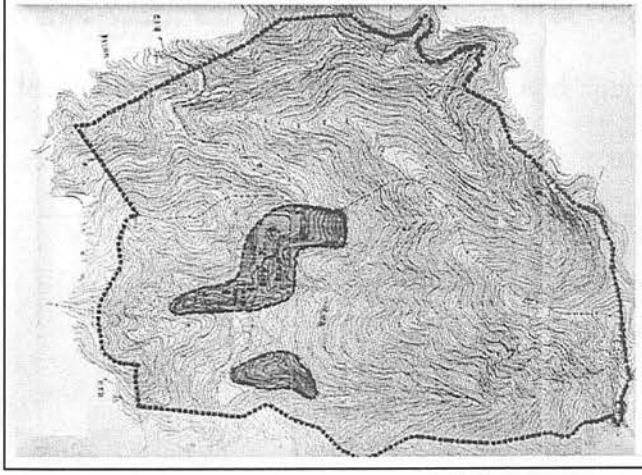

Figure 58 Land use types of the Ming-Chih Forest Recreation Area: This figure shows the proportions of the two land-use types made within the whole Ming-Chih Forest Recreation Area. The two dark shade zones are areas considered suitable to build larger concrete structure and thus are mapped out as the recreational facility area. The rest are areas containing valuable landscape recourses so that they are classified as the landscape preservation area, where only small and necessary facilities can be built. The site for this landscape construction project is within the larger dark shaded area.

As Figure 58 shows, the land marked as a recreational area is not extensive but is clustered at two fields. The total area of the two selected fields is 53 hectares, which is rather small in terms of the allowed development percentage because it only uses up

[13] This map is copied from the Planning Report of the Ming-Chih Recreation Area page 47 and edited by the author.

5.8% of the total project area. This is due to the limitation of the site condition, as the whole forest recreation area is a mountainous region, with slopes that are too steep to reach or to build large constructions upon. The areas with a lower gradient are spread out around the lake of Ming-Chih, the Ming-Chih nursery, and the east field of one kilometre distance from the Ming-Chih nursery. Since the whole recreation area is without much gentle topography, the main service road of the region, the Northern Trans-Island Highway, was also planned and built across the low-gradient areas between the lake and the Ming-Chih nursery. The area of the lake and the nursery is therefore separated by the road and becomes two disconnected sites. Nevertheless, in terms of the spatial distance and existing facilities, the fields among the lake, the Ming-Chih nursery, and their adjacent area along the Northern Trans-Island Highway are still closely related and thus they form the major recreational facility area. In comparison, the remote east field area becomes a secondary site of facility development, though it was selected and specified as the accommodation area for additional cabins (see Figure 59[14]).

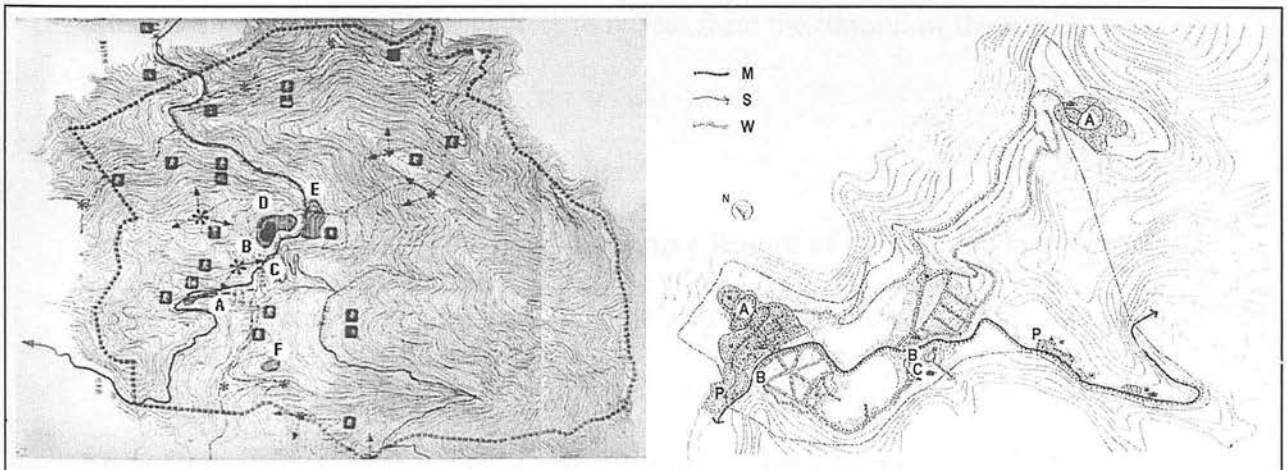

Figure 59 Site plans: a) Sub-areas Plan for the recreational facility area – A: Entrance area, B: Tourist centre, C: Horticultural planting area, D: The Ming-Chih Lake and the landscape construction site, E: Hostel accommodation area, F: Forest cabin area (left). b) Detail Facility Plan – A: Accommodation areas, B: Entrance fee collection place, C: Tourist centre, P: Parking lot, M: The main traffic road, S: Service road, W: Walkways (right).

[14] These plans are from the Planning Report of the Ming-Chih Recreation Area, page 48 and page 84. Both figures are edited by the author.

In Figure 59a, six sub-areas are pinned down for different types of recreational facilities. The Ming-Chih landscape construction project covers sub-areas B and D, which are the areas planned for a tourist centre and a special landscape site. A more focused plan in Figure 59b draws the connections betweens the sub-areas and gives a general outline of a list of the planned facilities. As Figure 59 shows, the site of the Ming-Chih nursery area and the lake area are the centre of the development. Consequently, a narrow sense of the Ming-Chih Forest Recreation Area refers only to the landscape area around the lake and the accommodation area near the Ming-Chih nursery, which excludes sub-areas A and F in Figure 59a. The site at the north side of the Northern Trans-Island Highway, which includes sub-areas C and E, is the main service area of the Ming-Chih Recreation Area. It contains hostels, two types of cabins, a restaurant, parking lots, and few scenic spots. Since the Northern Trans-Island Highway goes across, the site covers the lake, Ming-Chih, is set apart from the site of the accommodation facilities. This site is therefore planned to be a distinct scenic attraction, which contains a tourist centre and several scenic spots, either designed or natural for visitors to retreat from the turmoil of the world.

Design concepts and the 'theme gardens'

As the lake, Ming-Chih, is the most distinctive feature of the site, the lake becomes a theme of the area that surrounds it. One sub-divided area, which is around and includes the lake, is thus marked out and called the Ming-Chih area. The original Ming-Chih is a declining natural lake, which had been renovated and turned into a naturalised man-made lake. An environmental investigation was done to reduce the negative impacts that the change would make. After the renovation, the area of the lake is increased and three small islets are formed in the lake with an ecological purpose to provide habitats for living creatures of the site. Apart from the islets, a few

dried trunks of red cypress were inserted vertically into the water to create an interesting and reminiscent scene. A rustic pavilion is projected into the lake as a spot to watch the view. Around the lake, a few more constructions were made for people to walk, stay, and enjoy the scenery. At the west lakeside, a multi-stratified gazebo is another place set up to overlook the lake and underneath it, the rest rooms are built. At the north of the lake, a waterfront terrace is designed to grow some special water plants. A wooden-framed walkway goes across the plant site and provides people access to watch the plants more closely. As the master plan of the whole area shows (see Figure 60[15]), the sub-areas near the lake area are the 'Forest Fairytale Labyrinth' and the 'Chueh Yuan, which means the fern garden'.

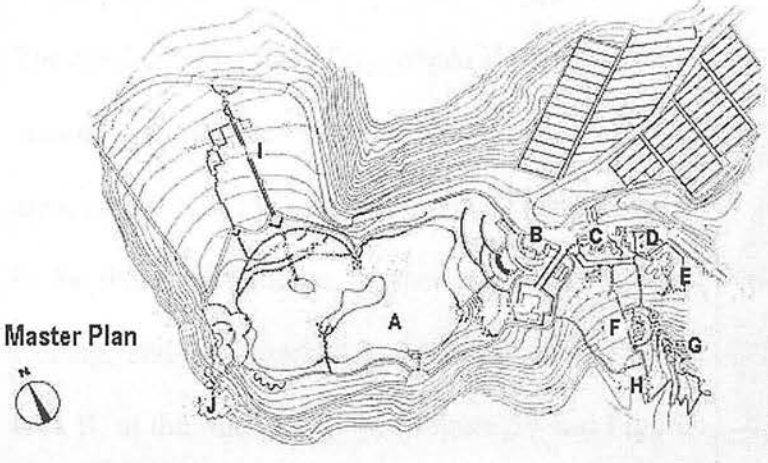

Figure 60 Master Plan of the landscape construction area. A: The Ming-Chih Lake. B: The entrance to this landscape area. C, D, and E are sub-gardens of the Ching-Shih Yuan (C: Chu-Shui Ting, D: Shih Ting, E: Fu-Chun Ting). F, G, and H are sub-areas of the Tzu Yuan (F: Hua Ting, G: Tzu-Hsiao Pavilion, H: The area of a Lagerstroemia subcostate tree). I: Chueh Yuan. J: The Forest Fairytale Labyrinth

As the design layout shows, the labyrinth is at the southwest woods near the gazebo at the west of the lake. With a signpost at the starting point, the visitors will be led by wooden steps to a matrix labyrinth, which is built on a gradient site and mixed within the trees of the woods. The labyrinth comprises several decks and small shelters and the tops of the shelters have statues of the seven dwarfs. The shelter, which has the

[15] This plan is taken from the webpage www.arch.net.tw and edited by the author

Snow White statue, is built on a large deck near the labyrinth and provides a better view to the lake than the shelters of dwarfs. The joy of playing in the labyrinth is therefore not just from finding the way but also the reward of a nice view. As to the fern garden, the design is rather simple and the site remained less touched. The built paths within the area are reduced when compared to its initial plan; thus, the fern garden area remains an intact site and is somewhat remote from other sub-areas. The design in this area provides only two types of walkway and a wooden deck for people to walk around and learn about the ferns of the site. Both the walkways meet at the north to lead to the exit of this landscape construction site. This also suggests that Chueh Yuan is the last visiting spot of the whole site.

The tourist attractions of the whole site are not only centred upon the lake but also on the special garden area, which is at the east woods site. This area used to be the summerhouse of the ex-president, C.K. Chiang, and was marked as a tourist service area, area B, at the initial plan (see Figure 59 and Figure 61[16]). Nevertheless, at the final design changes of the plan moved the desired Chinese garden to this site. Hence, the Chinese garden, Ching-Shih Yuan, was created to replace the planned tourist centre and exhibition house, and at its south slope, a few scenic spots were made to form an open garden,

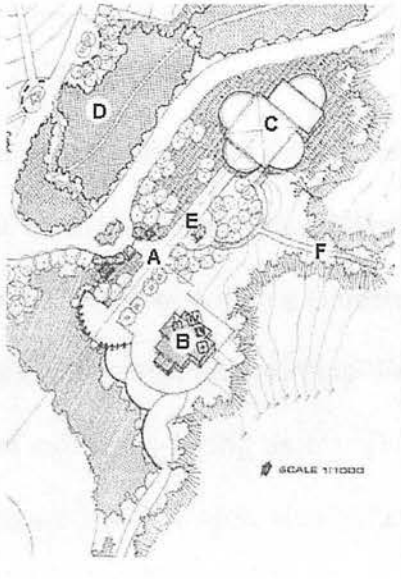

Figure 61 The initial plan for the entrance area of the landscape construction site – A: The entrance. B: Tourist centre. C: A display room. D: Planting area. E: The Tao-Lan pavilion. F: The walkway leading to the Tzu Yuan.

[16] This layout is copied from the Planning Report of the Ming-Chih Recreation Area page 48 and edited by the author.

Tzu Yuan. This area is turned into a man-made landscape with a few designed scenic spots, which could be read more clearly from the detailed plan of this area (Figure 62[17]).

Figure 62 Layout for Ching-Shih Yuan and Tzu Yuan: this design layout shows more details of two theme gardens. The first is the Ching-Shih Yuan and it contains two sub-gardens, i.e. the Chu-Shui Ting (A), an enclosed garden; and a semi-enclosed garden, the Fu-Chun Ting, which is composed of B: and C: Shih Ting. The second theme garden is Tzu Yuan and it has the sub-areas of the Hua Ting (E), the Shui-Chin Cave (D), the Tzu-Hsiao Pavilion (7), and the Lagerstroemia subcostate valley (F). Within these two theme gardens, a few constructions are built – 1: The entrance gate. 2: A narrow Chinese style avenue. 3: Chu-Shui pavilion. 4: Chan Ting pavilion. 5: Tao-Lan Ting Pavilion. 6: Cha Ting pavilion. 8: Toilets.

As this layout shows, the garden of Ching-Shih Yuan, which consists of three small gardens, is located at the low gradient area, adjacent to the Northern Trans-Island Highway. The design principle behind Ching-Shih Yuan is 'Gardens within a Garden' and the layout is drawn according to the spirit of the well-known Chinese painting 'Fu Chun Shan Chu Tu' ('Picture of living in mountains at exuberant spring time'). The garden has two enclosed gardens, one semi-enclosed space and one open area. After entering the main gate of the garden, visitors are led into a Chinese style avenue, which has walls at both sides. The doors at the walls lead to the sub-areas of Ching-Shih Yuan. The north area between the wall and the main road is the first enclosed garden, which is named Chu-Shui Ting – a garden with meandering water

[17] This plan is taken from the webpage www.arch.net.tw and edited by the author

feature. The idea of this sub-garden is based upon a festival of ancient China that happened at the riverside in late springtime; and accordingly, a meandering water feature is designed to imitate a small stream and a pavilion is set for people to rest and reflect on the historical feast and its atmosphere.

At the end of the avenue is the garden called Fu-Chun Ting, which consists of one enclosed garden, Shih Ting, and a semi-enclosed scene (see Figure 63). A pavilion, Chan Ting, is set at the boundary of these two spaces to separate and connect them. To make use of the site's character, a small waterfall and a pond were formed at the semi-enclosed area. The scene is therefore naturalised with a dynamic water flow. In comparison, the enclosed area is made of a dry garden in a static manner with gravel and rock to symbolise water and mountain. Though Shih Ting is more like a Japanese garden, the whole landscape created in the Fu-Chun Ting follows the Ying-Yang concept of the Chinese Feng-Shui theory. According to the designer, the strong contrast of dynamic and static left the visitors immense room for their imagination and thus it made the garden more interesting and attractive.

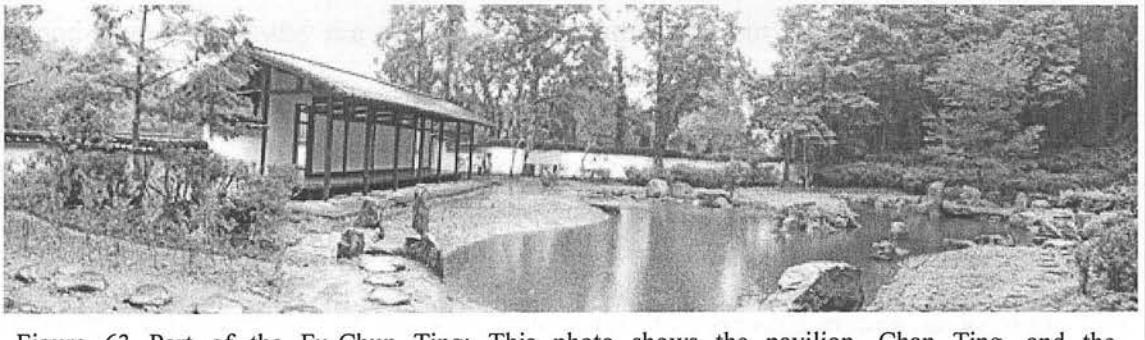

Figure 63 Part of the Fu-Chun Ting: This photo shows the pavilion, Chan Ting, and the semi-enclosed garden. A water feature is arranged in a natural form as a small pond existed on the site before the design. (Photo was taken by the author in 2003)

The last sub-garden area of Ching-Shih Yuan is at the south side of the avenue. This site is full of natural moss and lichen and thus the garden is named after as Tai Ting, which means moss garden. A few large fallen trees within this area, together with

native plants make a grotesque scene, so the site is less designed and remains quite natural as in its original condition. A pavilion, which is named Tao-Lan after the names of the nearby counties, Tao-Yuan and I-Lan, by the ex-president, is located at this site. Yet, this pavilion is not the original one but a renovation as the old one was not well maintained. Apart from this pavilion and the stone steps and walkway, there are no other man-made constructions in this area. Tai Ting is therefore not like a designed garden but like natural small woods among the whole forest. The design of the garden, Tzu Yuan, is very like Tai Ting, and thus no clear boundary is set to enclose and define the area of the garden. As the layout shows, the sub-areas of Tzu Yuan are scattered on the site, with only trails to connect with one another.

Though the sub-areas of Tzu Yuan are not clearly defined in the design layout, according to the designer, five themes determine the subdivisions and detail designs of Tzu Yuan. Thus, there are five sub-areas in Tzu Yuan and they are the two types of walkway made by stone and wood, Hua Ting (flower garden), Shui-Chin Cave, Tzu-Hsiao Pavilion, and Lagerstroemia subcostate valley. The stone walkway and wood-framed walkway are not clustered together to form a design area but arranged within the whole Tzu-Yuan to connect with other sub-areas. Stone steps and paths are arranged around the lower gradient area of Tzu-Yuan, while the wooden-framed walkway is made as a mountain trail, which leads into the hilly woodlands and starts from the highest point of the site, where the Tzu-Hsiao Pavilion is located. This pavilion is a renovation of the original Tzu pavilion, which is named by the ex-president, in remembrance of his mother. The old pavilion is rusty and damaged; yet, it is still the best place to overlook the lake and the scenery of the whole site. Thus, this area is marked a sub-area of the Tzu Yuan with only a man-made structure, the pavilion, for people to rest and enjoy the beauty of the natural scenery. Along the

wooden-framed walkway, the visitors are led into a hilly area, which is amidst both the natural woods and the man-made forest. A few interpretation signposts and decks are set up at the side of the trail for visitors to stop, read, and learn about the plants and topography of the site. The sub-area, Lagerstroemia subcostate valley, is one of these stops. It is marked as a sub-area because a distinctive tree, Lagerstroemia subcostate, which is over a hundred year old, was found there. This area is thus made as a tourist attraction and has remained natural, with only a wooden-framed walkway going by.

As to the stone path, according to the designer, it is the earliest constructed part of Tzu Yuan and is connected with Ching-Shih Yuan as a zone of gradual transition, from designed garden into a natural area. The stone walkway leads to the sub-areas of Hua Ting and Shui-Chin Cave. These two areas are close to each other and near to Fu-Chun Ting. Contrasting with the enclosed garden, Chu-Shui Ting, and the semi-enclosed garden, Fu-Chun Ting, Hua Ting is an open garden, which is deliberately designed without a distinct boundary. Along the stone steps, the visitors will see a shelter in front of Hua Ting. The shelter is actually the gate of the garden; yet, there is no fence around or at the sides of the gate. When entering through the gate, there stands a pavilion, called Cha Ting (which means tea house), facing a small designed scene with gravel, small rocks, camellia and azalea. From Hua Ting, visitors could overlook the pavilion, Chan Ting, and the pond of Fu-Chun Ting through the gaps of the trees. When going towards Fu-Chun Ting, visitors will find the Shui-Chin Cave, which is quite a small man-made cave. The cave is dug according to the site topography and is designed to be a place where people can hear the crystal-clear sound of every water drop. Outside the cave, a stone pavement is made in a rough circular form among the woods, which seems to symbolise round ripples.

Discussion and comment

So far, the background, relevant plans, and design details of the Landscape Construction of Ming-Chih Forest Recreation Area have been reviewed. The review affirms that the design concepts submitted to the competition refer only to the detail arrangements of the landscape constructions around the site, which overlooks the ideas and guidelines made at the planning level of the project. Thus, it is not surprising that the social and ecological concerns are only identified in the design concept text as uncertain implications, rather than evident statements. Moreover, in the aesthetic category, there are also hidden concepts, such as 'improvement' and 'conservation', which cannot be easily pointed out from the designer's descriptions. Nevertheless, the major concern for the designer is still about aesthetics, and 'artistic expression' remains the most distinct concept of this project. The review also discloses the new aesthetic concept, 'pleasure', and the new social concept, 'service', and their connection to each other and to Dr. Thompson's social concept, 'amenity'. These will be discussed in turn.

The aesthetic idea of 'conservation' can be read from the classification of the land use types at the whole Ming-Chih Forest Recreation Area (see Figure 58: 196). The landscape preservation area is specified as places where the original condition of both the natural and cultural landscape shall be preserved and maintained. No matter if it is natural or man-made, as long as the site is considered beautiful or having visual aesthetic merits, preservation is required. Although this is quite a minor idea in the whole project, it does reveal that the concept, 'conservation', was applied and the preservation of the forestland here is more about an aesthetic concern, rather than an ecological one. As to the concept of 'improvement', it can be perceived through the renovation of the lake and the detail-planting plan, which are only addressed in the

planning report of MCFRAP. Although most existing plants remained untouched, those regarded as imperfect or unpleasant were cleared out and replaced with ornamental plants to create varied scenes or to enhance visual expression. In addition, while the renovation of the lake wished to restore the lake to its original state, the appearance of the lake was changed. The lake surface was extended, islets were made, and dry trunks were put up. All these changes exposed the notion that the original natural scenery could be improved, even though there is a symbolic meaning behind the idea of inserting trunks into the lake. Accordingly, it is believed that the concept, 'improvement', was adopted in this case as well.

Another previously hidden aesthetic concept, which was revealed in this case study, is the new aesthetic concept, 'pleasure'. As was discussed in Chapter six, the concept of pleasure is not just about improving the views by adding visual attractions, but it also is a concern for other sensate satisfactions, aural, tactile, or olfactory aspects. The implicit application of the concept, 'improvement', together with the idea behind the design of Shui-Chin Cave reveals the new concept 'pleasure'. Since this project was launched for a recreational purpose, it is not surprising that the designer wished to create pleasant places to please the visitors. While imaginations and stories are used to bring out different design themes, sensate experiences were added to enrich the atmosphere of the created scenes. For example, in Chueh Yuan (the fern garden), more ferns were planted to replace the unpleasant weeds and to enhance the visual impression of the vigorous fern community. In addition, Shui-Chin Cave was created particularly for people to listen to the clear and rhythmic sound of water drops. Although the cave is too small to accommodate more than two people at a time, and it is not a comfortable place for people to stay long and rest within, it is indeed an interesting place to experience and visit.

As the concept 'pleasure' is manifested as a way of creating interesting or pleasant experiences, it is quite close to the social concept 'amenity'. According to Dr. Thompson, 'amenity' is identified as many British landscape architects share the professional skill of empathising with users and share the belief of making people's lives better by improving their surroundings. The social concept, 'amenity', is therefore understood as an empathetic design approach, which aims to make peoples lives better through the provision of a comfortable and pleasant living environment. Accordingly, the concept of pleasure is closely related to the concept of amenity and it seems that these two concepts somewhat overlap. Nevertheless, these concepts are not identical and they belong to different value categories. Since the ideas identified as the manifestations of pleasure are related to the concept of improvement or artistic expression, the concept of pleasure is more subjective, regarding beauty, meaning, or sensation. Although the concept of amenity also stands on the designer's understanding and knowledge, it is much more a concern about and for users rather than a tacit or somewhat mysterious designer taste.

In this case, while the designer shows a strong personal favour to the creation of pleasant and interesting scenes, many design details and ideas reveal that he also pays attention to the users' need. However, there is no evident and eloquent description given to state the social concept of amenity. In the design concept text, the designer gives no clear statement to show his social concern. There were only hints, as the designer is keen to make various recreational activities happen on the site and he refers to the setting up of facilities. Thus, two social ideas are identified as 'introducing new activities' and 'provision of facility'. After comparing similar ideas in other cases, the new social concept, 'service', is suggested and it is about the function or use that the project intends to fulfil. This new concept, while it is close to

an empathetic approach towards users' needs, is applied as a systematic analysis of user demand. Sometimes, the user demand comes not from the survey but the client's claim. For example, the function of a project and certain facilities are often defined and required by the client, which leaves little room for the designer to decide or negotiate about. Yet, in this case, the client shows a great respect for the professionals' and the potential users' opinions. A survey was conducted to study the tourist potential of the site regarding the social aspect. Questionnaires were sent out to collect information about visitors' age and gender, where they came from, whether they are in a group or not, what kind of group it is, the transportation they use, the education level, occupation, monthly income, the time spent in the site, the frequency of visiting, the kind of activities they do on the site, and their expectation of visiting, etc. All these data were analysed to help site planning and to suggest the potential user needs. The idea of the fairytale labyrinth is believed to have been a response to the survey result since it is designed to serve a particular user group, children and young people.

The review of the planning report shows that this project does reflect a strong social value. Nevertheless, it cannot be easily perceived in the design statements and thus was not identified in the concept sorting stage. Since the social values are applied along the decision-making process of the whole project planning, it is understandable that the submitted design concepts, which focus only on the detail design arrangements, do not refer to the underlying social principle. It is the same in the ecological category. While the concept, 'harmonisation', seems implied in some design considerations, there is no apparent account in the concept text to support it. Accordingly, the ecological category was given a low grade and it was believed that the ecological value is not emphasised in this case. Indeed, it is not the main principle adopted in this project, and along the preplanning survey, no particular environmental

issue was identified against the development on the site. Nevertheless, while there seems no noticeable statement showing the designer's ecological concern, the survey on the natural environment shows that the designer did not ignore the ecological aspect of the project. At the same time, the brief report of the environmental assessment reveals the designer's ecological stance in his approach to design with nature and it minimises the disadvantages that the new development would bring to the whole environment, which in essence, is exactly the concept of 'harmonisation'. Therefore, the researcher is convinced that an ecological principle is actually adopted in this case rather than merely implied. The designer tends to maintain the site characteristics and reduce unnecessary concrete constructions.

Apart from 'harmonisation', the concept of 'structure' could also be identified in the planning report. Yet, this idea is not well articulated and remains an ill-developed notion. According to the planning report, the area suitable for development is restricted to the gradient of the site. Although modern technology helps to overcome the problem of building on a high-degree gradient site, it is still considered inappropriate and dangerous to develop on the area of a gradient over 30-degrees. Thus, the development area was reduced to 53 hectares, which is rather limited when compared with the permitted development area, as it only uses up 5.8% of the total forest recreation area. In addition, soil types, geology, stream course and source, and site vegetation are all studied to take into account the water and soil maintenance. Even though there is lack of detailed analysis on the collected information, it is still believed that the designer was aware of the structural issue of building on a mountainous site. As the report presents, the designer also collected information about the living creatures on the site. This seems to imply the concern was extended to the long-term stability of the ecosystem. Accordingly, the designer's ecological concern

could be related to the concept of 'sustainability' rather than merely about 'structure'. Yet, no further analysis or explanation is given in the planning report; and thus, the idea of 'sustainability' cannot be clearly identified. In addition, the stance of the designer's concern for living beings is quite anthropocentric, which aims to reconcile the possible conflicts brought by human intervention, rather than to create an enduring ecosystem. It is therefore believed that the ecological principles adopted in this project are more related to the concepts of 'harmonisation' and 'structure'. Yet, it must be noted that the new ecological concept, 'structure', indeed overlaps with the concept of 'sustainability' and the former seems a less developed concept of the latter. This case shows that while the concept of 'sustainability' is not evidently applied, what can be perceived is the concept of 'structure'.

This study reveals much insightful information for the exploration of Taiwanese landscape practice. Both the concepts of 'pleasure' and 'service' are identified and connected to the concept, 'amenity', in the discourse paradigm. While 'service' is used as a systematic analysis of potential user demands, 'pleasure' is adopted as an aesthetic approach to achieve 'amenity'. Accordingly, it is very likely that the Taiwanese landscape practitioners are using both 'pleasure' and 'service' concepts to express their concern for 'amenity'. In addition, the concept of 'structure' is related to the concept of 'sustainability' as an immature notion about sustainable environment. This could suggest that ecological concepts are not well developed or understood in Taiwan. The exploration should be continued to gain more information about Taiwanese landscape practice.

7.3 Case 2: Kuan-Shan Environmental-Conservation and Water-Friendly Park

Project brief and background

Kuan-Shan is an agricultural town in south-eastern Taiwan. According to the administrative division, it belongs to the county, Tai-Tung. In terms of the physical geography, Kuan-Shan is located in Hua-Tung Valley, which is between two extensive mountainous regions of Taiwan, the Central Mountain Chain and the Coastal Mountain Ridge. Kuan-Shan had always been an important administrative hub of the Hua-Tung Valley throughout the history of Taiwan. This is because Kuan-Shan has rich water recourses including plenteous ground water, easy accessible springs, and branches of the Pei-Nan River, which attracted the immigrants to cultivate the land and to form an agricultural community. Kuan-Shan is therefore known by its environmental characteristics, i.e. mountains and rivers, and its quality agricultural products, particularly the famous Kuan-Shan Rice, which was constantly exported to Japan from the 1920s for a few decades. Since Kuan-Shan grew from a small community to a village, and to a town, it was specified in the East Regional Plan to be developed into the second-grade central town of the region. Yet, during the past ten years, Kuan-Shan town had suffered the problem of constant population lost. Without an effective strategy for future development; promoting Kuan-Shan to a second-grade regional town remains an unfulfilled plan.

The initial factor that caused residents to leave Kuan-Shan town is a natural disaster, seasonal flooding. During the rainy season, the water level of the streams rises up quickly. Typhoons and days of heavy rain would cause sudden and severe floods, which not only washed away crops but also damaged houses and costs people's lives. Thus, dykes were gradually built, rebuild, and extended to prevent flooding. In 1998, the planned dykes were all built along the riverbanks of streams that flow across the

town; and the dyke density of the town, 0.49 km/km^2, broke the records of all other places in Taiwan. To build up more and greater dykes has secured the residents, yet it still cannot reverse the trend of population decrease. Taiwanese society has gradually changed its economic focus from agriculture to industry from the 1950s. Consequently, to revive Kuan-Shan town would demand a new strategy and a change in the direction of its original development rather than to merely build up dykes. In addition, these dykes, the striking huge concrete constructions, also changed the landscape of Kuan-Shan town. Its residents are aware of this change and feel that Kuan-Shan has gradually lost its original landscape characteristics. The recently built dykes are regarded as unpleasant man-made features, designed to keep people away from the riversides. In order to embellish the town environment and restore the pleasure of rural life, the governor of the town proposed a planting plan at the riverbank areas in 1994.

The project of 'Kuan-Shan Environmental-Conservation and Water-Friendly Park', was proposed a year later after the town governor's planting proposal was presented to the chief administrator of the Environmental Protection Administration, which is one of the highest environmental sectors of Taiwan's central government. Encouraged by the central governor, the original planting plan was extended to an overall landscape planning and design of the town. The new proposal was to make Kuan-Shan a modernised 'Garden Town', by which the living quality of the town residents would be improved and the modern industry, tourism, would be introduced to revive its fortunes. This development proposal was approved by the Environmental Protection Administration and was given a central government grant under the 'Fund for Air Pollution Control' in July 1996 to launch this project. 'Kuan-Shan Environmental-Conservation and Water-Friendly Park' was largely reliant upon this

funding to plan, design, and get the implementation started. In 1997 and 1998, it continued to receive subsidies from local government to accomplish the whole construction works.

The site and relevant planned areas

The total area of Kuan-Shan town is 5800 hectares, which contains seven neighbourhoods. Apart from the 183 hectares urban planning area, which is known as the town centre, the rest of the town is either farming fields or uncultivated land. The town centre is at the west side of the Hsin-Wu-Lu Stream, which is the upstream of the Pei-Nan River. The chosen site for the desired environmental park is located along the Hsin-Wu-Lu Stream at the area between the stream and the town centre. As the town centre is not far from the river, it only takes 10-15 minutes walk from 'Kuan-Shan Environmental-Conservation and Water-Friendly Park' to the railway station at the town centre. The planning and design of this park is under the project of the environmental greening and embellishment plan of Kuan-Shan town, which is to make the whole town as a park. Accordingly, the environmental park itself is only part of this new development plan. The planning area not only includes the park site but also the town centre, its surrounding fields, and other riverbank areas along the west side of the Hsin-Wu-Lu Stream. According to the site analysis (see Figure 64[18]), three separated sites along the riverbank were selected as suitable locations to build three different types of environmental parks. Yet, only the first one, Environmental-Conservation and Water-Friendly Park, which is the site A in the map, was carried out to the design stage and is now open to the public. The other two are

[18] This figure is taken from the Planning Report of the project of the environmental greening and embellishment plan of Kuan-Shan town, page 5-1-2. The legends are edited by the author.

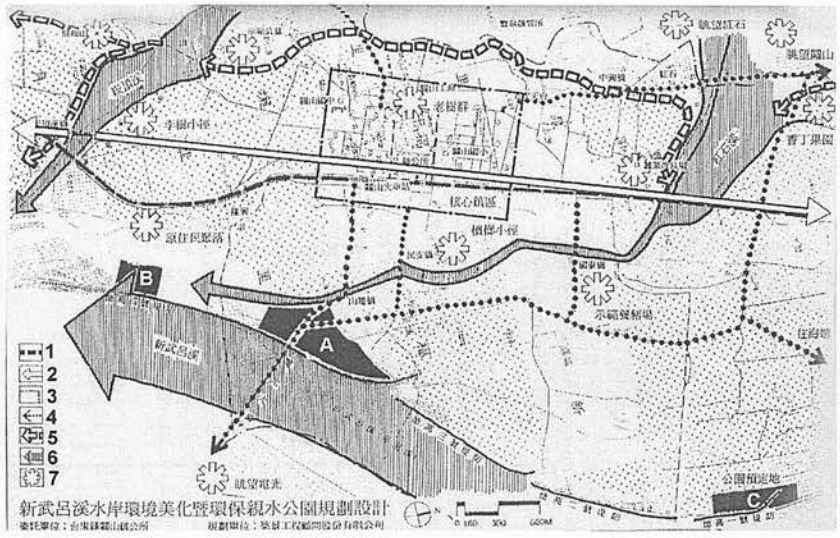

Figure 64 Site analysis: This figure is the site analysis made for the Kuan-Shan town environmental embellishment ptoject. According to the original plan, there were three environmental parks, i.e. the black areas named A, B, and C in the map. The legends presented in this figure are as the follows: 1. Railway. 2. Main traffic artery. 3. The Town centre. 4. Other traffic roads. 5. Irrigation channels and green belts. 6. Streams. 7. The interesting landmarks of the town.

categorised as additional planning elements, which are suggested ideas without assertive action plans to carry them out. According to the concept map (see Figure 65[19]), this new development scheme includes firstly, the ideas of a closed-circuit bikeway around the town centre with a few interesting scenic spots along the cycling track; secondly, a central environmental park with waterfront green belt to link up with two outer parks; and lastly, a linear bikeway at the outskirt of the town to connect to the adjacent villages of Kuan-Shan town. Apart from the plans of the closed-circuit bikeway and the central park, other ideas are only extended visions, which are discussed as additional planning elements and are not included in the short-term development plan, which has two executive stages. The first stage focuses only on the planning and design of the itinerary of the bikeway around the town and the second stage is the design and construction of the main environmental park, Environmental-Conservation and Water-Friendly Park.

[19] This diagram is taken from the Planning Report of the project of the environmental greening and embellishment plan of Kuan-Shan town page 5-1-3. It is edited and translated by the author.

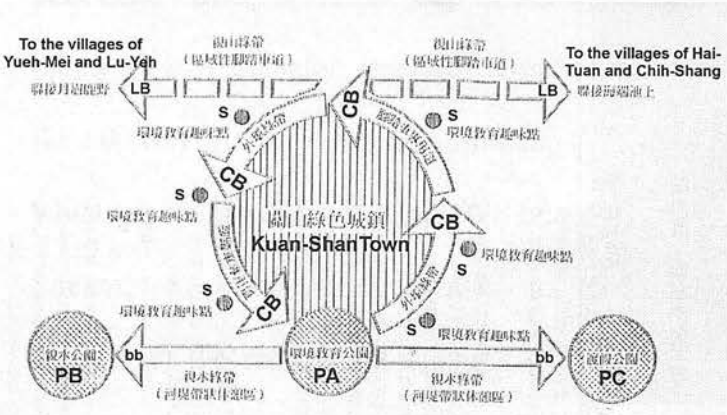

Figure 65 Concept diagram for the Kuan-Shan environmental plan: This concept diagram presents two types of bikeway and their relationship to the Kuan-Shan town. CB: The circular bikeway that surrounds the town. LB: The linear bikeway to connect this town with its adjacent villages. The circular bikeway will lead to several interesting landmarks of the town, i.e. S in the diagram. Three environmental parks marked as PA, PB and PC are sited along the waterfront area, i.e. bb: the blue belt.

The idea of planning a bikeway to surround the town comes from the town governor, Mr. Hsu. He thought that cycling is a good exercise for most people. In addition, this light exercise is not only good for health but it is itself an enjoyable leisure activity. As Kuan-Shan is a small rural town without pollution, Mr. Hsu believes the best vehicle the tourists should use to visit the town is the bicycle. This is because cycling will not cause air pollution and it is effective enough for people to stroll around a small town. Therefore, a track of twelve-kilometre length was mapped out for cycling use, and the route of the bikeway was planned as an outer loop around the town centre. It is the first bikeway in Taiwan that is designed in an enclosed-circuit to surround a town. In this way, visitors are led to many tourist attractions of the town along their cycling trip. Moreover, not only is the route of the bikeway deliberately planned, the details of the bikeway are also taken care of. The edges of the bikeway, the pattern of the pavement, and the resting places along the track are all carefully arranged and designed. Accordingly, a leisure atmosphere is created and the planning and design of this bikeway lays the foundation for the goal of making Kuan-Shan a leisure town.

Kuan-Shan Environmental-Conservation and Water-Friendly Park is regarded as the starting point of this enclosed-circuit bikeway (see Figure 66). Though the site of the

park seems to sit aside the loop of the bikeway, it is actually separated from the bikeway by the Hung-Shih Stream, which is a branch of Hsin-Wu-Lu Stream. Nevertheless, in order to connect to the park, a short length of bikeway is built off the loop to go across the fifty-kilometre wide stream. Including the bikeway arranged within the park site, the total length of the bikeway is extended to fifteen kilometres. By the connected bikeway, the 'Kuan-Shan Environmental-Conservation and Water-Friendly Park' is deliberately planned in a way as part of the whole town rather than an individual piece of land. Yet, this park is still a distinctive scenic spot in Kuan-Shan town, in terms of its function and design. In addition, a park with 32 hectares area is not small in its size; this park is therefore unique to the whole town and is meant to be a key tourist attraction for people to experience and enjoy. 'Kuan-Shan Environmental-Conservation and Water-Friendly Park' is itself a project under the scheme of making Kuan-Shan a 'Garden Town'. Yet, it is also regarded as an accelerator to achieve this vision. Accordingly, this park design is expected to be an effective means to facilitate the development of the recently introduced industry, tourism, in Kuan-Shan town.

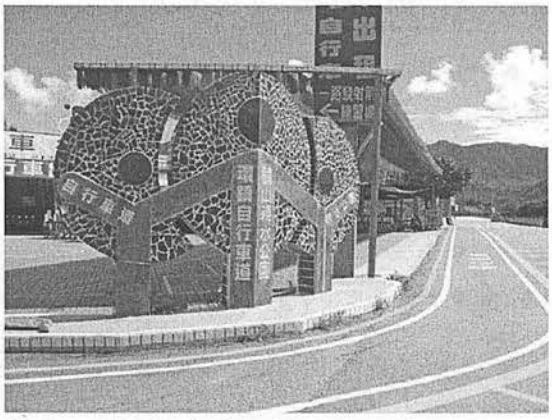

Figure 66 The landmark showing the starting point of the bikeway: Although the environmental park is regarded as the starting point of the bikeway, it is not at the actual starting point. This landmark is set up as a signpost to suggest the direction of the circuit bikeway and the direction of the park. (Photo was taken by the author in 2003.)

Project objectives and the park layout

Kuan-Shan is a low-polluted rural town surrounded by a beautiful natural environment. In this respect, the project of this environmental park while it aims to enhance the environmental characteristics of the town for leisure and recreational

purpose, it is launched as a means to prevent environmental deterioration. Therefore, the main theme of this park is about environmental conservation, which is further specified into six fields, i.e. air, soil, water, flora, fauna, and culture conservations. Apart from 'environmental conservation', 'water' is another theme of this environmental park. As was mentioned earlier, since the dykes were built, access to the riverside has been blocked. In order to restore the pleasure of being near to the waterfront, the park is expected to be 'water-friendly', in the sense that people will have easy access to the waterfront and are allowed to do some water sports and activities, such as playing with water, rolling a boat, fishing, or swimming etc. Accordingly, the water feature becomes an important design element in this project. In the project's planning report, a conceptual diagram (see Figure 67[20]) is presented to express these two design themes and their connections to each other and to other components of the plan.

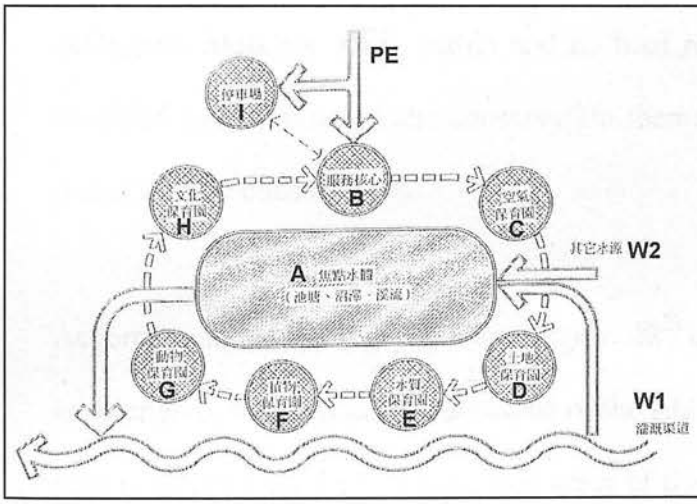

Figure 67 Concept diagram of the park: This park is designed with a main water feature, which is A in the figure. The water sources are from the W1, irrigation channels, and W2, other sources, such as river branches. PE is the park entrance area, which leads to the parking lot, I, and the tourist centre, B. The water feature is planned to be surrounded by a series of environmental conservation areas, i.e. C: the culture conservation area, D: the soil conservation area, E: the water conservation area, F: the flora conservation area, G: the fauna conservation area, and H: the air

Once the main themes of this environmental park are defined, the subdivision of the site can be made and thereafter, a detailed layout with more accurate designed-forms is developed. Yet, in this case, as a main traffic artery of the town goes by, the park

[20] The figure is from the Planning Report of the project of the environmental greening and embellishment plan of Kuan-Shan town, page 7-2-3. It is edited and translated by the author.

site is already divided into two areas before any subdivision is planned. Therefore, this park is known as having two sub-areas; one is for active activities, while the other is for static use. Indeed, the designs of these two areas are different in their created atmospheres and their functions. Nevertheless, in terms of the two main design themes, the spirit of the design in both areas are still consistent but are expressed in different forms. This can be clearly read from the design of the water features. In the smaller area at the south of the site, the water features are designed into a lake, a group of paddling pools, and fountains and a narrow meandering watercourse. All these water features are designed for people to play with water; though swimming is not allowed in the lake, people can still fish and row boats there and they are allowed to play with water along the meandering watercourse and in the paddling pools. As to the larger area of the site, water features, as a series of lakes, extend from the first lake. Yet, in this area, the lakes are designed in a more natural form, in which few small ecological islets are made within and no boat rowing or fishing is permitted. Most specified subdivisions of the conservation theme are located in this area except the one of culture conservation.

According to the park layout (see Figure 68[21]), the entrance of the park is in the smaller area, which is at the southwest of the site. Since the ground level of the traffic road is higher than the two separated areas of the park, a subway is made underneath the road to connect these two areas, and the tourist service centre was built close to the end of the subway at the south-side area. As to the area of the park entrance, a control centre was set behind the entrance square for administrative use and a car park was arranged outside the entrance to serve those who arrive by motorcars.

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[21] The layout is scanned from the entrance ticket of this environmental park and is edited by the author.

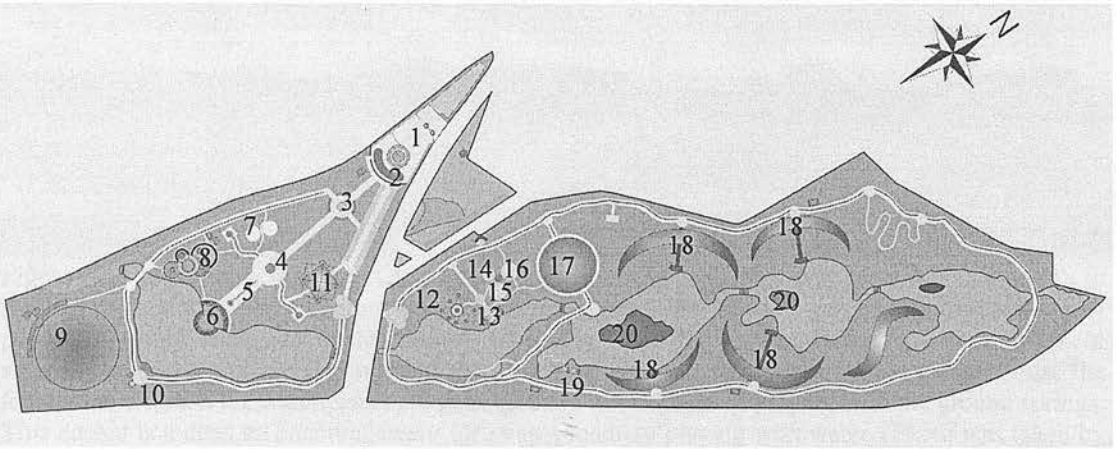

Figure 68 The Park Layout: This Park is divided into two bodies. The smaller area at the south of the traffic road is designed for more active activities and contains: 1. Entrance area. 2. The control centre. 3. The bikeway map and start point of the park. 4. The central fountain. 5. The meandering water course. 6. The performance platform upon the lake. 7. Children playground. 8. Paddling pools. 9. The culture conservation area and a round lawn. 10. A watchtower. 11. The tourist service centre. A subway is built to connect the two separated park sites, and the north site is made for quieter activities and a series of conservation areas are placed within. This site contains: 12. The gazebo designed to show degrees of air-clearness. 13. A pavilion to overlook the lake. 14. Plant-light demonstration rooms. 15. A square for interpreting season changes. 16. A sundial. 17. An artificial hill. 18. Special shelters for observing birds. 19. A shelter and wooden-framed bridge. 20. The ecological islets.

Visitors who come by bikes can bring the bike into the park, yet the bikeway is not started at the entrance but from the bikeway map at the south of the control centre. As the layout shows, across the main road, there is a small piece of land, where a lotus pond was placed. In terms of its main function, this pond is a water purification pool. As this area is not connected to the main park areas, it is often regarded as an independent pocket park outside this environmental park. Yet, it is actually included in the entrance area; and in contrast to the hard manmade constructions at the main entrance, this locus pond area creates a natural atmosphere to welcome the visitors.

After going through the entrance gate, the visitors are already in the area made for active activities. A fountain of water springing up from the ground was set at the entrance square to welcome people and invite them for water activities (see Figure 69). In this area, visitors will experience a series of water scenes from ground springs to a central fountain and meandering watercourses. These water scenes encourage people

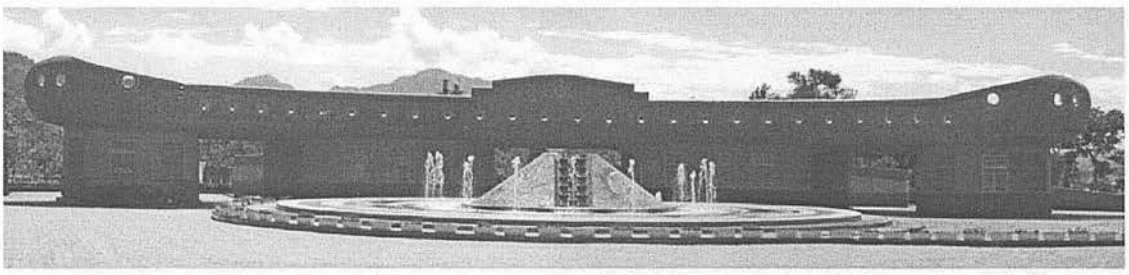

Figure 69 The entrance fountain: Once the visitors enter the park, they will see a fountain sitting in front of the control centre. Visitors are allowed to play with the fountain water. Children and young people are often interested in this design, especially when the ground springs are coming up. In summer time, visitors are not worried about getting wet and thus most people cannot resist the temptation to touch the water; some are getting really wet because of playing with the ground springs. This design is indeed an encouragement for people to enjoy playing with water. (Photo was taken by the author in 2003)

to experience the pleasure of being close to water. People will then be led to a large man-made lake and a few paddling pools to enjoy the real joy of playing with water. Not only the water-related activities are encouraged, activities that are regarded as more active are expected to take place in this area. A platform was provided as an outdoor theatre at the west side of the lake for performance use, a children's playground was also arranged near the paddling pools for children and family activities, and a large round lawn with a crescent-shaped shelter was made for funfairs and festival activities. This round lawn area was also made to fulfil the design idea of culture conservation. It was designed in a very simple form, because it was expected to be a place for cultural events to take place rather than an exhibition centre for relics display. There are also three other distinct designs in this area. The first is a special canoe-shaped bridge across the west end of the man-made lake (see Figure 70) and it was made to reflect the beautiful Lan-Yu canoe, which is well-known handicraft made by the aborigines in Lan-Yu Island. The second is a watching tower at the north of the lake. The tower was not designed in an extraordinary form, yet its location is significant as it has the best perspective to look out over the whole park. The third distinctive design object is the tourist service centre, which was designed as a pyramid. Except the windows and the doors, this building is covered with grass, which makes it

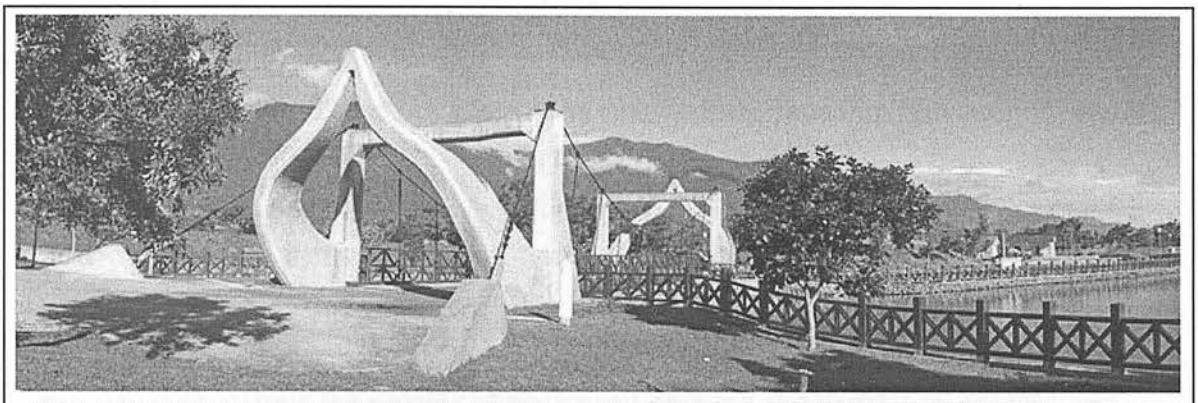

Figure 70 The canoe-shaped bridge: This bridge goes across the west of the lake at the south park site. The gates at both sides of the bridge are shaped according to the Lan-Yu canoe. Although the Kuan-Shan town does not have direct relation to the Lan-Yu Island, the special shape of the Lan-Yu canoe is borrowed to express a reminiscent thought. Probably, it is because this bridge is set near the culture conservation area that the designer feels like using some pattern of the aborigines to reflect the cultural theme. (Photo was taken by the author in 2003)

looks like a green hill, though an artificial hill. Since this object is eye-catching and interesting in its feature, it attracts people to go near to it; and when visitors go closer, they are about to embark on the entrance area of the 'ecological area' as the signpost named it, which is the larger area of the park at the north of the main traffic road and is specified for the use of non-active leisure activities.

Once the visitors enter into the ecological area, they will discover a series of conservation themes, which covers five environmental aspects including air, soil, water, flora, and fauna. Yet, there is no clear space division for these specified sub-areas. In addition, water feature is still the main design element in this ecological area and the main body of water was designed as four connected lakes. All these lakes were shaped in a more naturalised form with different sizes of inaccessible islets in three of them. The islets were designed to be a wildlife habitat for living creatures, particularly for wild birds and insects. In order not to bring disturbance to the designed wildlife habitat, special shelters were set by the lakes for visitors to observe birds (see Figure 71). Each shelter was made underneath a slightly ascending crescent as a camouflaged blockhouse. Within the shelter, visitors will be kept in a certain

distance to watch birds, and this will protect bird habitat from disturbance cause by human interference. These designs are the details of the fauna conservation theme. As to the theme of flora conservation, it is disclosed in the planting design of the area near the first lake at the north side. The area was designed as natural woodland that contains native trees and wild flower grassland. This simulated woodland area was made to demonstrate the process of ecological planting and vegetation succession.

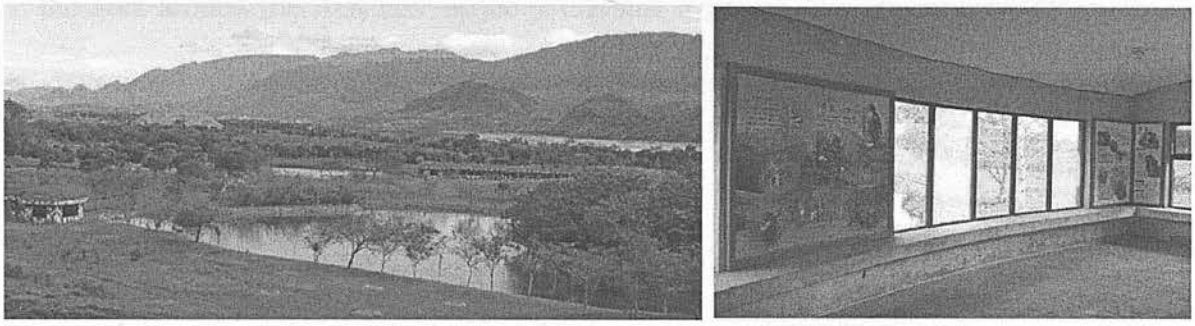

Figure 71 Shelters designed for observing birds: These special shelters are camouflaged around the naturalised lakes at the north park site. They are sitting smoothly within the scene that is it not easy to identify them from the left photo. Inside the shelter, there are several windows for visitors to observe the outside environment and the living creatures. A few interpretation signposts are provided to help visitors identify the birds and fishes they would see in this park. (Photos were taken by the author, 2003)

Apart from the designs of fauna and flora conservation, designs for other sub-divided aspects of environmental conservation were made more explicit to the public and some of them have an educational purpose. Therefore, several designed constructions were set up as scientific demonstrations for environmental conservations. For example, a wall of stair-shaped waterfall was built to explain the idea of gasification in the process of water purification; a large sundial was placed on the site to show people some basic knowledge about time and season from the moving of sunlight; and, an elevated square for people to overlook the distant scenery was designed as a place to test the clearance of the air. All these designs were made with interpretation signposts to instruct the use and explain the purpose of the design. Moreover, in contrast to the designs of other more naturalised features, these artificial concrete

constructions were grouped at the area near the entrance of the subway. Three wood-made pavilions were set near these hard landscapes at the lakeside as a place for resting. Along the walkway, visitors will be led to a man-made hill, which is a mound with a flat top for people to overlook the park and to observe stars at night. Across the lake, there is a wooden-framed deck above the water leading to another pavilion at the opposite side of the lake. These designs are semi-naturalised landscapes, which make the area around the first lake at the south side a garden-like atmosphere. Once, the visitors go pass this area, they will feel the design is getting simpler and the atmosphere is more naturalised.

Discussion and comment

According to its name, 'Kuan-Shan Environmental-Conservation and Water-Friendly Park', it is obvious that this park is related to 'water' and 'environment'. Therefore, it is not surprising to see a series of water feature designs and environmental demonstration areas in the park. Yet, it was not expected that the environmental concerns expressed in the design statements are largely related to the social value field. This can be read from the designs of the so-called 'ecological area' in the park, i.e. the area planned for non-active leisure activities. Except the ecological islets, other conservation-related designs are just demonstrations made for ecological education. According to the design concept text, there were only two ecological concepts identified, i.e. 'harmonisation' and 'sustainability'. Ecological education was not stated in the design statements and also cannot be directly link to these identified ecological concepts. To study the text again, the researcher notices that while the idea of 'sustainability' is mentioned as a principle to maintain a good quality environment for future generations, no specific approaches were stated to show the way this principle is adopted or achieved. Thus, it is possible that the designer is using

educational design to teach people about the nature so as to arouse people's love for nature, and it may result in effective environmental maintenance, as people will reflexively help preventing the natural environment from deterioration. The design statement regarding public participation supports this point, because 'participation' was stated as a means to fulfil the ideal of sustainable environment. Therefore, the researcher believes that the designer's ecological concern of 'sustainability' is expressed in 'ecological education'. In addition, no other design can be identified in the whole park to demonstrate the application of the concept of sustainability. Though the design of naturalised lakes with so-called 'ecological islets' seems producing a long-lasting man-made nature, it is after all a design made from the designer's concern for a non-disturbed environment for living creatures, which is itself an expression of the ecological concept, 'harmonisation'. If there is an articulated expression of the 'sustainability' concept, it probably is the whole project of 'the environmental greening and embellishment plan of Kuan-Shan town' because this plan is launched as an environmental strategy for a long-term development of the town and aims to benefit not only the town residents but also their descendants.

As to the concept of 'harmonisation', it is the major ecological principle used in this project, and several details manifest this concept. The most obvious example is the design of the ecological islets and the blockhouse-like shelter for visitors to observe wild lives and their living environment, particularly wild birds. Another example is the division of the park into an active activity area and a static ecological garden area. By separating active recreational activities from non-active ones, disturbance will be minimised and restricted in a controlled area. In the same way, the park itself can be regarded as a buffer zone between the town and the river, which, on the one hand, provides people an opportunity for waterfront recreations and on the other hand,

prevents direct human impact upon natural environment. In fact, the whole environmental plan of Kuan-Shan town is based on the ecological concept of harmonisation. Since there is no specific environmental problem to be solved and the whole town is graded as a low-polluted rural region, the new development for Kuan-Shan town is only expected not to cause negative environmental impacts, rather than to deal with existing problems. Therefore, this project reflects a strong environmental concern of 'harmonisation' and intends to make Kuan-Shan an ecological town, which is understood as an environmental-friendly town according to the researcher's interpretation. As to the recurring theme of 'environmental conservation', it is not about an action plan that saves deteriorated lands but is more like a slogan that reminds people to treasure their environment. As the designs of the sub-divided conservation areas reveal, the emphasis of 'conservation' is not a reflection of the ecological concept, 'health/integrity', but a social-oriented idea of 'ecological education'.

As the design concept text presents, this project also reflects a great social value. From the project background to many detail designs, it is easy to find evidences that support the social concept, 'amenity'. Yet, the concept of 'consultation/participation' is less evident. Although 'participation' is stated in the concept text as a means to inculcate the environmental consciousness of the town resident, no records of public participation are found in the project's planning report nor in other relevant governmental and non-governmental archives. It is intriguing that the idea of participation is expressed in the design statement, yet no design decision was made as a result of public resolution. Accordingly, the researcher believes that the involvement of local residents in this project is focused on ecological education rather than decision-making or detail design forms. It is, therefore, not easy to identify the traces

of public participation in the park design. On the contrary, the concept of 'amenity' is rather apparent, and it is revealed particularly in the design theme of 'water'. At the area for active activities, visitors can experience the pleasure of playing with water by different forms of water feature design. The designer aptly compensates the town residents for their lost of easy-access to riverside by offering opportunity of various and safer waterfront activities. In this park, the lost pleasure of being close to the waterfront is restored and the issue for the safety of riverside activities is also resolved. As the result, people's lives are improved and amenity is achieved. In the course of this review, the researcher finds that 'Kuan-Shan Environmental-Conservation and Water-Friendly Park' has become a tourist attraction of the region as it was expected. The whole environmental greening and embellishment plan does help Kuan-Shan to develop into a town of tourism, by which, local people's lives are improved not only psychologically but also economically. The social value revealed in the design statement is substantially applied and realised in many details of this project. Nevertheless, it is a pity that the concept of 'consultation/participation' is not evident in this case.

As to the aesthetic value, it is indeed not the emphasis of this project. Yet, the aesthetic concepts identified from the design concept text, i.e. 'conservation' and 'improvement', are still perceived in some modest details. In addition, some design forms also give an implication of the concept, 'artistic expression'. Once the dykes were built at the riverside to prevent flood, the original landscape of the stream has been changed. Though the designer mentioned about using this park design as a means to re-frame the particular stream scenery, the changed natural landscape cannot come back to its original condition. The designer therefore preserves a large green space in this park, which reflects the aesthetic concept of conservation. As Kuan-Shan

is surrounded by a chain of beautiful mountains, the distant natural scenery becomes the background of this park. Thus, the extensive green lawns and diverse vegetations look as they are connected to the natural mountains. When overlooking the surrounding natural scenery, the visitors will feel that this park becomes a part of the great nature. The only difference is that this park contains some ornamental plants and several designed facilities. From the neatly trimmed hedges and colourful landscape plants, the aesthetic concept of improvement is disclosed. Nevertheless, the overall planting design is fairly modest so that this park still looks as if it is part of the nature, rather than a designed garden. The concept of 'improvement' that the designer expressed in this park seems having a spirit of the concept of 'conservation'. As to the concept of 'artistic expression', it is identified from the shape of the canoe-like bridge and the pyramid tourist centre. The bridge was made across the man-made lake near the area of culture conservation. Using the unique shape of Lan-Yu canoe to design the bridge may have symbolic connotation to the culture and history of the aborigines in Lan-Yu Island. The pyramid building with grass covered over also seems to symbolise a green hill. Therefore, there could be a hidden aesthetic concept of artistic expression. Yet, it must be admitted that there is no eloquent evidence to support this view. What can be affirmed is that the designer does not place much emphasis on the aesthetic value in this case.

This case reveals a few unexpected applications of the landscape value concepts and helps to understand more about landscape practice in Taiwan. It also demonstrates that Taiwanese landscape designers are using the concept of 'service' as an approach to achieve 'amenity' even though they seldom refer to amenity directly. This will be further explored and discussed in the latter section.

7.4 Case 3: Luo-Tung Sport Park

Project brief and background

The Luo-Tung sport park is located at the northwest suburb of Luo-Tung town in I-Lan County. Being shaped by its natural environment, as the Lan-Yang Stream flows across the county, I-Lan had been developed into two main living domains, i.e. the north stream area and the south stream area. I-Lan city, the capital of the county, is the centre of the north stream area, and within it, the I-Lan Sport Park was built up in 1985. In view of the success that the I-Lan Sport Park made for the improvement of the living environment of the north stream area, the county government decided to build up another sport park at the south stream area to balance the regional developments of the whole county. The Luo-Tung Sport Park is thus proposed and it is an important scheme included in the Living-environment Renovation Plan of I-Lan County. Consequently, while the park is basically planned to serve for the south stream residents, it also promises to offer the whole county residents a greater place for sport and leisure activities. In addition, as the local government of I-Lan County brought out a policy to develop the county as a recreational resort, the long-term objective of the Luo-Tung Sport Park is to serve also as one of the tourist attractions, which together aim to build up the tourism of the county so as to revive the economy in the region.

Though Luo-Tung town is not the capital of I-Lan County, it is the heart of the south stream area. In addition, it is also the business and commercial hub of the whole county. Among 450,943 people, the total population of I-Lan County, Luo-Tung town contains 65,218 residents, which makes it the greatest town of the county. This town is therefore growing towards a city scale. Indeed, Luo-Tung town becomes more and more urbanised and starts to face some problems of urbanisation, such as

environmental deterioration, lost of environmental characters, pressures upon living environment, and the so-called civic-illness caused by hectic life style and lack of excise. As such, the Luo-Tung Sport Park is expected to fulfil the function of an urban park, which in Taiwan, is regarded as a necessary public facility of the modernised regions to improve urban environmental quality and to ensure the citizens' health and welfare. Being an urban park, this sport park not only should provide sport facilities but also has to contribute to the quality of urban environment by keeping enough green area and making accessible open space. Accordingly, the Luo-Tung Sport Park is redefined as a place for sport and outdoor adventurous leisure activities, which is made in the form as a park with great extents of open space by the use of the gracious natural environment as its background and the provision of required facilities for sport and leisure use.

The site and relevant planned areas

The site of the Luo-Tung Sport Park is selected at the outskirts of Luo-Tung Town. It belongs to the Pei-Chen community and is located at the north of the whole neighbourhood, which is at the west of Luo-Tung Town (see Figure 72[22]). The selected site is adjacent to the agriculture and the re-developed area of the Bei-Cheng neighbourhood and could serve as an extension of the nature reserve area. Although the area of the sport park itself is 46.8 hectares, the vicinal rural and natural areas of the site are also took into account and included in the plan of this project's higher level planning. The total planning area of the Luo-Tung Sport Park is 200 hectares (including the park itself), which is divided into four sub-areas (Figure 73[23]).

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[22] Both the maps are taken from http://www.lotong.gov.tw/TW/default.asp?PageId=F_M02_01_03V and are edited by the author.

[23] These plans are from this project's planning report pages 22 and 25, and are edited by the author.

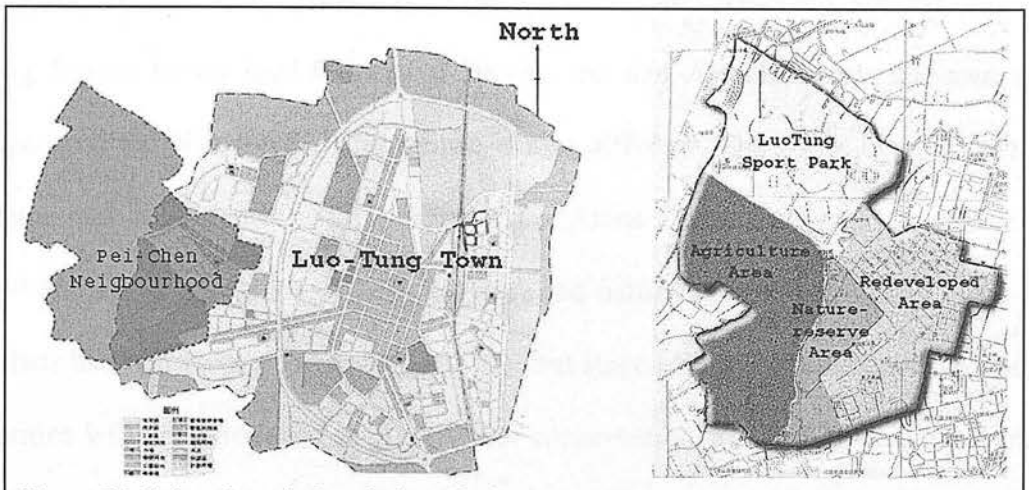

Figure 72 Sit location: a) Correlation of Pei-Chen Neighbourhood to Luo-Tung Town: the Luo-Tung Sport Park is located at the west outskirt of Luo-Tung Town; and according to the administrative demarcation, it is belongs to of Pei-Chen Neighbourhood (Left). b) Correlation of Luo-Tung Sport Park to Pei-Chen Neighbourhood: the site selected for the Luo-Tung Sport Park is at the north of the neighbourhood (Right)

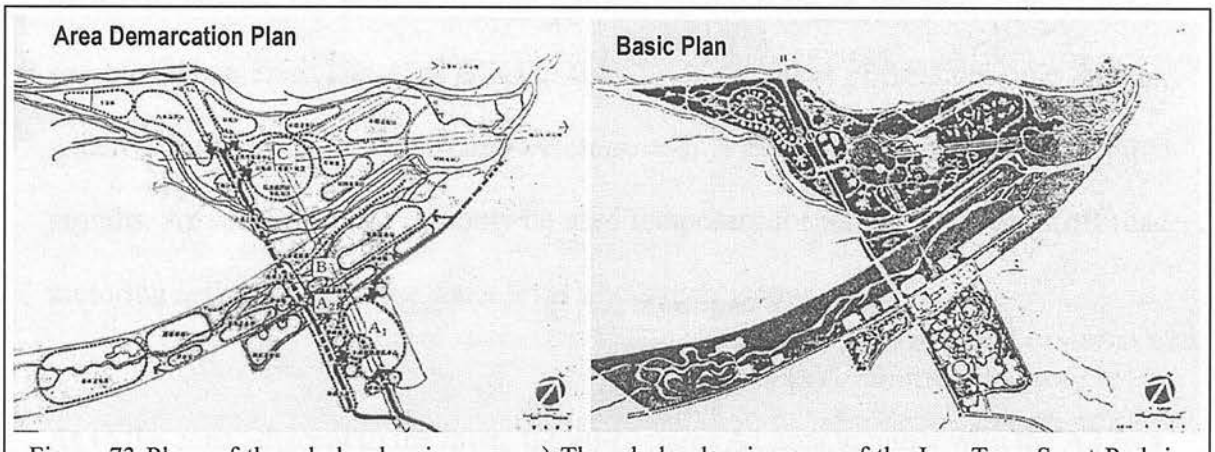

Figure 73 Plans of the whole planning area: a) The whole planning area of the Luo-Tung Sport Park is divided into four areas according to the site characters and the potential uses: A1 and A2 areas are the site of the park, B is the long and narrow area along the Luo-Tung Stream, and C is the less-developed natural area between the Luo-Tung and An-Nung Streams (Left). b) According to different land-use divisions of the whole area, a basic plan is proposed to suggest the potential development of the Luo-Tung Park and its extended planning areas (Right). Both figures are cited from the Luo-Tung Sport Park Planning Report, page 22 and 25, and are translated by the author.

According to the Luo-Tung Sport Park Planning Report, the demarcation of the areas is made by the site topography and the conditions of the natural environment. As both the Luo-Tung Stream and the An-Nung Stream flow by the suburb of Luo-Tung Town, the whole planning area is divided accordingly into three main bodies, i.e. the zone adjacent to the town (A1 and A2 areas), the riverside zone of the Luo-Tung Stream

(Area B), and the zone between both the Luo-Tung and An-Nung Sreams (Area C). Being divided by the land features of the site, the size of each zone is therefore quite uneven and the plan for their future use is also different. The zones between the two streams and around the Luo-Tunf Steam i.e. Areas C and B, which together cover about 160 hectares, are less-developed rural and natural areas. Consequently, the plan for their use will be more restricted. At the first stage of implementation, no particular activities will be introduced in Area C but conservation works will be carried out to preserve the existing vegetation and to restore the original flora. Only then, Area C will be able to serve the Luo-Tung Sport Park as its outskirt recreational area, which is expected to offer people an opportunity to approach nature and thus, may arouse their concern for the preservation of natural environment or the provision of green space in urban area. The Area B is the area inside the dikes of the Luo-Tung Stream, which is highly subject to the nature factors, as it is flooded in rainy season for three months. As such, this area can only be used temporary for parking, biking or off-road motoring activities when the water level of the river is low.

As to the zone adjacent to the town, the 40-hectares A1 area together with the A2 area, it is where the Luo-Tung Park is built and the only area, in which plans with detail designs had been implemented and is now open to the public. The design concepts of this project presented in the national landscape project competition refer only to the designs of the whole A1 and half of the A2 areas. The A2 area is the passageway between the inner and outer dikes of the eastside Luo-Tung Stream. It is considered the most suitable place to locate large-size sport fields. Accordingly, a football field, a stadium (with running track), and a baseball field are allocated at the north part of A2

area (see Figure 74[24]). The south side of the A2 area is planned to be small woodland, in which a campsite will be allocated. Nevertheless, this area is not included in the main body of the Luo-Tung Sport Park.

Since large sport fields are planned in the north A2 area, the A1 area will only have to accommodate few more facilities for sports such as, swimming, basketball, and tennis. The whole A1 area is therefore designed as a spacious park with few more formal sport fields. According to the project's planning report, the basic concept for this park is focused on three themes, i.e. 'Green', 'Water' and 'Health'. In terms of 'Green', this park is expected to reflect and connect to its surrounding natural environment. By providing a large extent of green space, it aims to be a hub for the environmental greening of the local area. Another theme, 'Water', is to emphasise the importance of water to man's life and in particular, the meaning of the Lan-Yang Stream to the people of I-Lan County. As to 'Health', it refers to the physical health of urban people. By encouraging people to exercise and have outdoor activities, it hopes that many illnesses of modern people will be eased and diminished.

Figure 74 The north A2 area: The dark shade area corresponds to the north A2 area, where large sport fields were built. It is part of the Luo-Tung Sport Park, yet at the same time can serve as different individual sport fields for pure sport activities or formal sport competition.

[24] This figure is citied from http://gym.ilc.edu.tw/html/link34.htm and is modified by the author.

Embodiment of the design themes

The theme of 'Green' (see relevant features in Figure 75[25]) leads to the idea of making different size of 'Jade Hills' and the experiment of reintroducing native plant species. As it is mentioned in the project's planning report, many foreign plants were brought to I-Lan by the past immigrants and had replaced the native vegetation of the region. Without pointing out any specific problem caused by the foreign plant species, the report simply states that indigenous plants have a significant part to play in forming and maintaining the regional vegetation. Accordingly, it is believed that to re-introduce the native plants for environmental greening shall help making a natural, healthy, and long-lasting green environment. Apart from planting design, 'Jade Hills' are introduced as a symbolic connection of the park to its background mountains. Together with few large lawns and lots of trees planted upon and around the hills, the design aims to create a greater green atmosphere and make this park a key nub of the future greening framework in its adjacent urban areas.

Figure 75 The theme of 'Green': There are a few design features related to this theme. The dark shade areas are the main green-space designs, which are A) 'Jade Hills', B) a gentle slope lawn, C) the landmark hill, D) the central lawn, E) a flat lawn, F) 'Prospective Square', and G) the water plant area.

The theme, 'Water' (see relevant features in Figure 76[26]), determines the use of water element in the detail design of this park. However, no clear account is given regarding

[25] This figure is citied from http://gym.ilc.edu.tw/html/link35.htm and is modified by the author.

[26] This figure is citied from http://gym.ilc.edu.tw/html/link32.htm and is modified by the author.

the reason of using water in the park design. This theme may just be a result of a reminiscent sentiment, yet it plays an important role in the whole design. In terms of the space structure of the park, the water feature as the most important character of the design is a main feature that forms and defines the spaces of this park. As to its function, it is designed to embellish the whole scene and at the same time to make an impression that water is friendly, enjoyable, and useful. Metaphysically, the arrangement of the water scenes tells a romantic story of the Lan-Yang Stream's life. Here, the positional deities of the Chinese ancient legend are first introduced as the guardian angles to protect 'Lan-Yang Spring', which is a swirl-shape feature to symbolise the source of the stream. At the latter design development, the concept of these symbolic deities is extended to form directional axes and some special scenes and places. Many interesting spaces and special landscapes are created accordingly to carry out the narrative of the stream's life. As such, the spirit of the whole design lies in this theme of 'Water'.

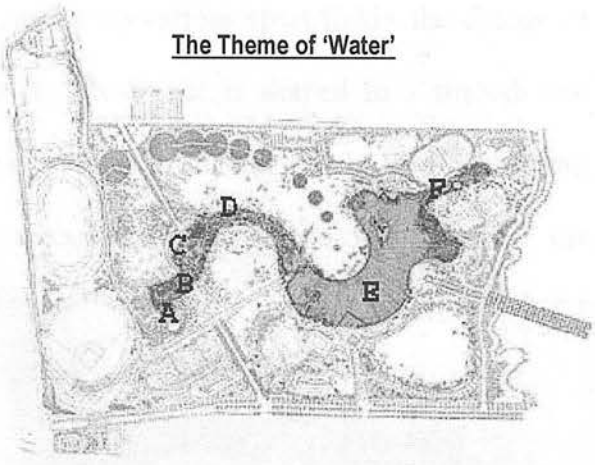

Figure 76 The theme of 'Water': Water feature is a very important design of this park and is arranged at the centre of the site. The dark shade area contains many details, which are A) 'Lan-Yang Spring', B) the imagined valley area, C) a paddling pond, D) the area symbolising a small stream, E) 'Hong-Ming Lake', and F) 'Blue Dragon'.

The third theme, 'Health' (see relevant features in Figure 77[27]), has much more to do with the basic concept of 'Sport Park', which by providing facilities and spaces, meets a great diversity of sport demands ranging from formal athletic competition, everyday

[27] This figure is citied from http://gym.ilc.edu.tw/html/link34.htm and is modified by the author.

excises, to leisure activities. Apart from setting up various sport fields, the change of site topography is taken into consideration. Most area is shaped in a smooth and tender form rather than simply performing a dramatic change to echo with the distant mountains. Therefore, many leisure exercises could still take place around the wavelike Jade Hill field. The areas with more levelled ground are made in different sizes of lawns for flexible and informal sport activities, such as lawn bowling and dodge ball. This theme is about the potential use of the designed areas and the allocations of the main facilities. As such, the basic layout of this park is greatly influenced and partly defined according to this theme

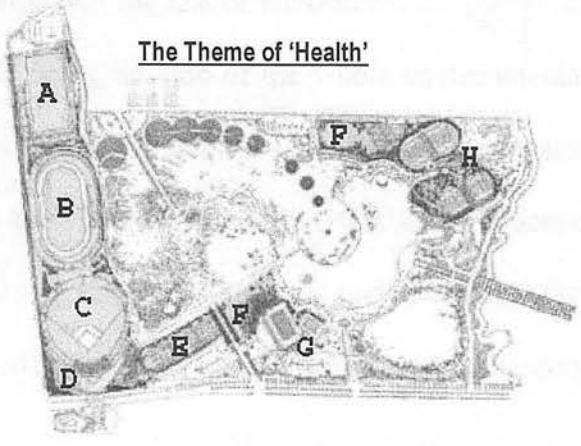

Figure 77 The theme of 'Health': This theme is related to the function of this park as being a place for people to exercise. The dark shade areas reflect the feature designed for sport activities including A) a football field, B) a stadium with running track, C) a baseball field, D) a skating field, E) basketball fields, F) the areas for lawn bowling, G) a swimming pool, and H) tennis fields.

Discussion and comment

After a more detailed study of the background and the plan of this project, it is surprising to see that the succinct account of the design concepts submitted for the competition does reflect the values of the designer and had been carried out in many detail design layouts. Nevertheless, there are still hidden values and few ambiguous thoughts. In the value category of Ecology, two ideas in the design concept text are identified as having ecological implications, which were too vague to be sorted under any of Dr. Thompson's environmental discourses. When referring back to the background of this project, it is confirmed that these two ideas of environmental greening and planting experiment do reveal the ecological concern of the designer.

However, the designer is not confident to address his stance or to clarify his ideas. Without a close study on any local environmental issue or an account for the relations between the urbanised area and its adjacent natural environment, the idea of 'environmental greening' is abruptly introduced and taken for granted as an agreed remedy for the problems of urban extension and the lost of environmental quality. In addition, apart from making statement of being the hub of the whole environmental greening work of the county, there is no substantial map or layout given for a basic greening network in the region. It is therefore believed that this environmental concern is not a thoughtful or a mature ecological idea. Thus, it is understandable that this idea cannot be easily recognised and referred to the ecological value category from the designer's statement.

As to the planting design, the use of indigenous plants though is mentioned in the project's planning report as an approach to make a desired environment that is natural, healthy, and long-lasting, is after all a kind of an experiment as the designer states it. The designer's lack of confidence is obvious. However, the design result turns out unexpected encouraging and prosperous. For example, the park has become a new home for many living creatures, particularly for migratory birds. Yet, the original idea of reintroducing indigenous plants is not seriously examined and applied as the planting design did not consider the mix use of native and non-native plants. Apart from indigenous plants, many horticultural plant species are used to embellish the park, which make the flora more complex and diverse. As a result, this park incidentally creates an artificial ecosystem, which is drifted away from the designer's original intention. Nevertheless, according to the information found in several websites, people do enjoy and appreciate the rich ecosystem this park brings about while recognising it as a 'man-made nature'.

The ecological value the designer reveals in this project can be related to the environmental discourse of 'sustainability' as the designer expresses a concern for long-lasting greening effect. Although the designer seems not very certain about his ecological ideas and is also not much aware of the sort of principles he follows, both the land-use demarcations at the higher planning stage and the use of native plants are evidences of the designer's concern for a better environmental structure that is robust and has a long term effect. With this regard, these two ideas can also be related to the new ecological concept of 'structure', as one is about the concern of the green space in the environmental structure and the other is a technical issue regarding the selection of suitable plants. Accordingly, the concept of 'structure' is connected to the concept of 'sustainability' in that it can be regarded as a variation of 'sustainability'. Since the use of native plants is regarded as a test, and which is not carried out under a considerate condition, it indicates that the designer not only lacks relevant work experiences in the ecological aspect but also is uncertain in asserting the concept of 'sustainability'. Probably, this is the reason the word 'sustainability' is seldom used in the design statements of the Taiwanese sample cases. After this review, it is convinced that the designer holds a stronger ecological value than he expresses in the design concept text, yet the designer is unfamiliar and indeterminate to this theoretical field.

Turning to the aesthetic values, it is interestingly found that the special scenes and spots of this project are all created for an aesthetic concern. In addition, all these aesthetic ideas are easily identified under the discourse paradigm of Dr. Thompson. Nevertheless, there are still ideas with hidden concept of 'improvement'. This can be seen in the change of landform and the idea of Jade Hills. The designer mentions in the project's planning report that the original site is a flat plain, which should be reshaped to make interesting scenes. Moreover, in view of visual effect, gradient

hillside will give greener impression than flat lawn. Accordingly, a series of hills are formed in different size and a particular hill with the highest altitude of 23 metre is set apart as a landmark and a special place to observe the stars. Though reshaping site topography shows an implication of the aesthetic concept, improvement, the designer only refers the idea as a symbolic expression to connect the park with its background mountains. It was therefore only recognised as an idea of 'artistic expression' in the sorting process.

Another significant design idea is the introduction of the positional deities concept from traditional Chinese Feng-Shui theory (see Figure 78[28]). Each deity is an imaginary creature with a specific colour to guard the four geographical orientations, i.e. the east by Blue Dragon, the west by White Tiger, the south by Red Sparrow, and

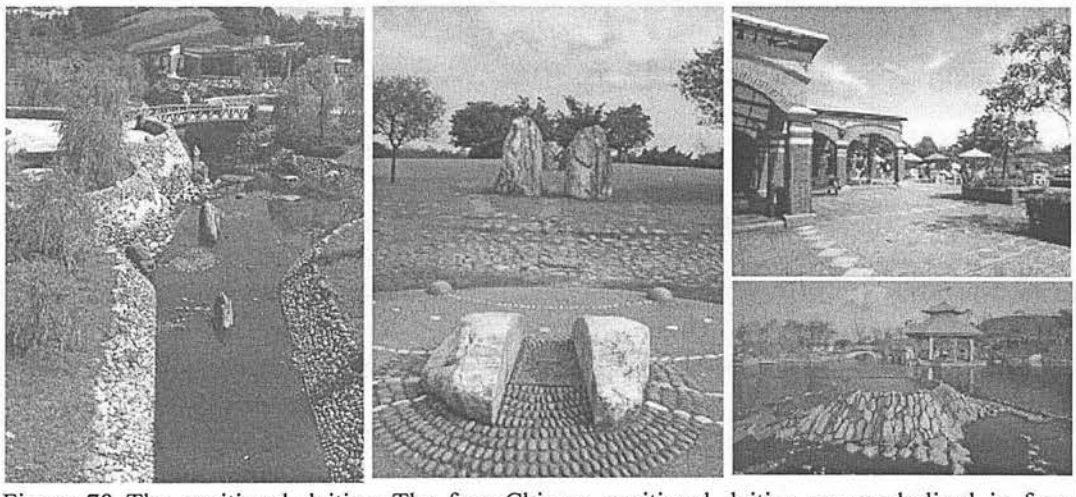

Figure 78 The positional deities: The four Chinese positional deities are symbolised in four special design features. At the east, a thin watercourse is arranged to represent the Blue Dragon (Left). In the west direction, a series of white rocks are erected in pairs to symbolise the teeth of the White Tiger (Middle). A special shelter made by bricks is arranged at the south of the lake to stand for the Red Sparrow (Right Top). As to the Black Force, it is made in a form of a volcano at the end of the north entrance (Right Bottom).

[28] The left photo is from http://media.ilc.edu.tw/art/AS/AS_LESSON08-5.HTM

The middle photo is taken by the author in 2003.

The right top photo is from http://www1.payeasy.com.tw/taiwan/02_travel/02_200304_2.shtml

The right bottom photo is from http://www.jles.ilc.edu.tw/papago/newfile16.htm

the north by Black Force (which is a creature in between a snake and a turtle). The designer notes that this idea is to reflect the local Taiwanese character and thus, he also shows favour in using local material, particularly, the natural stones, to express this abstract yet purposeful notion. Since these positional deities are not embodied in any recognisable form, it is difficult for people to identify each of these legendary creatures. As the public accounts posted on websites present, different interpretations and misunderstanding exist regarding the design of the deities. To gather pieces of design account given for different scenes, the idea of positional deities is closely related to the idea of the water feature design, as the deities are guardians placed around the source of the water feature, the symbolic spring. Yet, the positional axes are not projected out from a joined centre. Each relative geographic orientation is arranged with a directional axis and a scene or a resting spot to symbolise a deity. For example, several pairs of white granite rock are erected along and at the end of the west axis to symbolise the teeth of White Tiger. The east axis is made a meandering thin water course to represent the Blue Dragon. At the north, a pond with a small volcano-shaped water outlet is at one end of the north axis as the scene symbolising Black Force. The south, Red Sparrow, is referred to the resting shelter made by red bricks, which is the only spot not set on a clear directional axis. Without given information, it is not easy to figure out how and where each deity lies in the design.

In contrast, the water feature design, which also follows artistic and abstract notion, is better understood and interpreted. This is attributed to the interpretation signposts provided at each special scene. When visiting the park, the researcher though feeling a bit unusual, do find the signposts helpful in finding the places mentioned in the text and in understanding correctly the water's story. It has to be admitted that the designer of this project is ingenious in creating unexpected scenes by his own imagination and

creativity. No wonder this park is found favoured by not only the local people but also tourist from many other places and is accredited a beautiful art work by many.

This park becomes a popular place is not only because people enjoy the various scenes the designer creates but also because many sport and leisure activities do take place here. As the project background shows, this project is planned for a particular social purpose and so far, it does function as expected. This seems to suggest that the designer did a good job at the social aspect of the design. Yet, the only social value identified in the design concept text is 'amenity'. The way the designer achieves amenity is largely related to the provision and arrangement of facilities, which reflects two aspects of consideration, i.e. 'whether people will agree the things provided are what they need' and 'whether they will feel comfortable when using them'. As such, the designer studied the characters and requirements of different sport activities to define the kinds of sports this park should accommodate. In addition, the designer decide to place the sport fields at the outskirt areas of the site, particularly at the south side, as the main roads are adjacent to those areas so that it will be easier and more convenient for people who are only coming for sport activities. Other facilities, such as pavilions, a small tourist centre and signposts, are provided to make people comfortable so that people's lives are took care and made better in a sense.

The work of setting up and arranging facilities in this project is an effort to achieve the social concept, 'amenity'. Yet, provision of facility can also be referred to the new social concept, 'service', which is a concern about function and use. Accordingly, the concept of 'service' is related to 'amenity' because it can be regarded as an approach to deliver amenity. To read again the design concept text, the purpose of this project and the idea of making smooth topography could also be understood as a concern for

function and use. Yet, instead of referring to sport and other facilities, the designer kept using words like leisure sport and leisure activities to express his idea of the 'Sport Park'. In the project's planning report, the concept of a sport park is discussed and differentiated from the conventional stadium, which usually contains several sport fields and is only made up by various facilities. As such, a sport park is itself an embodiment of the concept, amenity, as it has a higher goal of achieving pleasant and better conditions rather than merely providing basic and required service. Although the focus and purpose of the concepts, 'service' and 'amenity', are not identical, in order to achieve amenity, service often has to be taken into account. The concept of 'service' is therefore inevitably overlapping the concept of 'amenity'. The nuance between these two concepts is probably that the concept of 'amenity' admits the subjectivity of the designer in defining the user demands while the concept of 'service' relies on a more objective or rational analysis to identify the potential user preferences and needs.

It is also interesting to find in this case that while the designer shows confidence in addressing people's want in the project brief, there is no reference of where the information comes from. No act of consultation or public participation shows that the designer does not contact people directly to understand what they concern or care about. Maybe this is because the client is the local government, which is regarded as an agent representing the local people. As the project's planning report presents, the designer did consider the client's opinions and make those ideas fulfilled in the design. The site plan is modified according to the government's requests. As the design layout presents, formal sport facilities are asked to sit close to each other for convenient management. A space for a possible gymnasium, which is still an unsettled proposal of the government, is taken into consideration and arranged a large lawn. Moreover, in

design details, the idea of making a platform upon water to serve as a stage for performance is also a suggestion given by the client. Although the client may not reflect the opinions of the ultimate users, the designer did show a positive attitude to incorporate people's suggestions or wishes into his design plan. So far, this project is proved successful as it is incredibly popular and becomes well known not only in the region but also in the whole country. According to a survey carried out by students of a local primary school, fifty percent of local people said they come to this park often and some even come everyday. Most users do enjoy this place and have very less complaints about it. The dissatisfactions expressed are all relating to insufficient facility provision, such as parking spaces, trash bins, and sheds. This shows that there is still a role the ultimate users may play in the planning and design processes.

In this case, both the new concepts of 'structure' and 'service' are revealed though they are not identified in the sorting process. The study shows that these two concepts are closely related to the concepts of 'sustainability' and 'amenity' in the discourse paradigm of Dr. Thompson. The concept of 'structure' is a sort of an application of the concept of 'sustainability', yet a less developed one. This is probably because the concept of 'sustainability' is not well understood in the Taiwanese landscape practice. Accordingly, the landscape designers in Taiwan reveal the ecological concept of structure as an alternative ecological approach while they feel uncertain or less confident in asserting the concept of sustainability. As to the concept of 'service', though it is used as a channel to deliver 'amenity' in this case, 'amenity' is seldom mentioned in cases where 'service' is observed. Yet, the study carried out so far shows that 'service' is sort of the Taiwanese expression of 'amenity'. This will be discussed more in latter section after the last case is explored.

7.5 Case 4: Wu-Lao-Keng Scenic District

Project brief and background

Wu-Lao-Keng Scenic District is one of the most famous resorts in I-Lan County. Since the I-Lan county government encourages the development of tourism and also intends to make the whole county as a holiday resort, various landscape projects were initiated and supported by the local government during the last two decades. The planning and design of Wu-Lao-Keng Scenic District is one of these government-supported projects. Before the project was commenced, Wu-Lao-Keng Scenic District is already a popular place to the local people and had attracted visitors of diverse recreational demands to visit. Quite a few recreational activities occurred on the site, including fishing at the upper stream, playing with water and swimming in the river, having barbeque at the riverside, hiking, picnicking, camping etc. These activities can happen all because the site is exceptionally rich in its natural resources. Within this scenic district, the Wu-Lao-Keng River including its upper stream, the East-Keng and West-Keng Rivers, flows through an undulating land and finally arrives at a plain. As such, the landscapes of this area are very dynamic and contain geographical land features of valley, valley plain, and hills. Wu-Lao-Keng is therefore recognised as a regional scenic spot in terms of its recreational type and potential. Although Wu-Lao-Keng had been a place of frequent visiting, recreational facilities were still not provided to serve for the visitors' use. In addition, the intense use of the site for a wide range of recreational activities could cause pollution and eventually result in irreversible damage to the natural environment. These all accelerate the I-Lan county government to launch this project.

Before the development plans of Wu-Lao-Keng Scenic District were started, the I-Lan county government had commissioned a research institute to conduct a scientific

study of the site and completed a report, 'Recreation and Pollution-control Plan for Wu-Lao-Keng Scenic District'. After works of ecological restoration were done, Wu-Lao-Keng Scenic District regains its former vitality and is ready to serve for recreational use again. This project is proposed thereafter to offer an overall planning for the further development of Wu-Lao-Keng Scenic District and make the region suitable for recreational use. The tasks of this project are multi-folded, yet they are all centred on the improvement of recreational quality. After all, this project is still part of the plan for the tourism development of I-Lan County. Accordingly, the suitable recreational development for Wu-Lao-Keng Scenic District has to be studied and determined in this project. As this district was expected to open to the public for recreational use soon, this project has to cover not only a whole area landscape planning, but also substantial plans and concrete designs. Nevertheless, since the plan for implementation has different stages, the completed works so far only cover a sub-area of the first-stage implementation plan. The project submitted to the national landscape competition contains both the principles of the overall landscape planning for the whole scenic district and the plans and designs that were suggested and partly completed in the first-stage implementation area.

The site and relevant planned areas

According to the administrative division of I-Lan County, Wu-Lao-Keng Scenic District belongs to Su-Ao town. Yet, it is at the border of Su-Ao town and is adjacent to Tung-Shan village. As the site of Wu-Lao-Keng Scenic District is located at the north-western outskirt of Su-Ao town, it is also not far from Luo-Tung town (see

Figure 79[29]). In terms of the physical geography, this district is itself a mountain valley connected to the south side of the I-Lan Plain. The area of this valley is extensive, which covers most of the main river basin of the Wu-Lao-Keng River and its hinterland. Nevertheless, the area that was specified and officially announced in 1984 as the 'Wu-Lao-Keng Scenic District' contains only about four hundreds hectares. The full plan for the recreational development, which is formally known as 'The Construction Plan for the Development of Wu-Lao-Keng Scenic District', covers this four-hundred-hectare area; yet only an overall landscape planning was suggested in regard to the whole district development. The more detailed implementation plan is reduced to one hundred hectare. The project submitted to the landscape competition is focused on the planning and design for this one hundred-hectare land i.e. the downstream zone of the Wu-Lao-Keng River. Among the whole Wu-Lao-Keng Scenic District, this one-hundred-hectare area is the only area with easy access because it is a semi-cultivated land, which has secondary traffic roads built within and a main traffic road going by. The site that was first developed and opened to the public is a nineteen-hectare area adjacent to the main traffic road. Since this area is at the gate of the district, it was chosen to be the first-developed area. Although there is another entrance to this district, which is at the eastside of the Wu-Lao-Keng River, the

Figure 79 Site location: Wu-Lao-Keng Scenic District, which is mark as W in the map, belongs to Su-Ao town, i.e. S. The site is very close to Luo-Tung town, i.e. L.

[29] This map is taken from the webpage: http://tourism.e-land.gov.tw/Default.asp?PageId=CR06_F_F00; and it is edited by the author.

entrance area at the west is often recognised as the main gate because it is just off the major traffic artery of the town and is very close to the railway station. It is therefore rather convenient for people to visit the west riverside area of this scenic district. As the result, this area becomes the most frequently visited area among the whole scenic district. Since the plans for other sub-zones of the first-stage implementation area are not yet finalised and have not been carried into practice, this entrance zone remains the only developed area and thus is often misconceived as the only recreational area of the whole Wu-Lao-Keng Scenic District.

In order to make the landscape planning accountable and thoughtful, the project manager and the planning team decided to extend their study area from four hundred hectares to a thousand and three hundreds hectares. As such, most of the main river basin of the Wu-Lao -Keng River and the immediate adjacent area of the valley will be included and taken into consideration. As shown in Figure 80 [30], the research area covers the whole planning area and it is only extended along the river basin; as to the

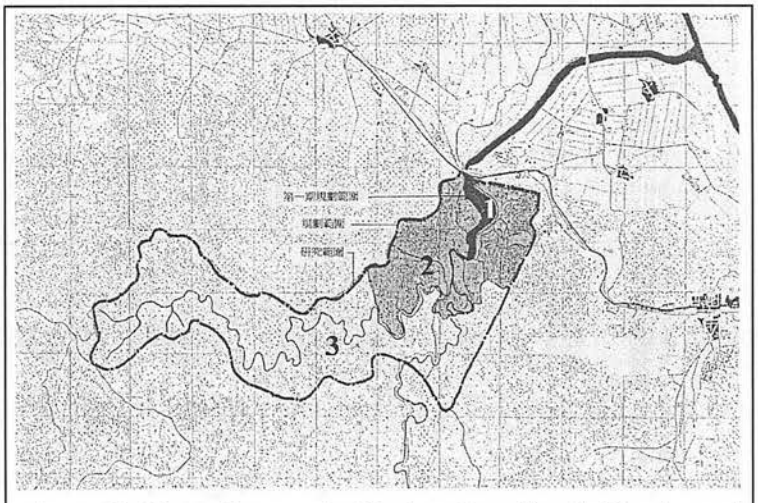

Figure 80 The study area, the Wu-Lao-Keng Scenic District, and the first implementation site: This figure shows the study area of this project and its relation to this scenic district. The total enclosed area, which is marked no. 3, is the study area. No.2. is the main body of the Wu-Lao-Keng Scenic District containing 400 hectares land and within it, the darkest zone marked no. 1, is the area of the first-stage implementation, which is about one hundred hectare.

[30] This figure is from the Planning Report of 'The Construction Plan for the Development of Wu-Lao-Keng Scenic District' page 4 and is edited by the author.

area of the first-stage implementation, it is within the whole planning area. Although the research area is not included in the planning area of this project, the planners still express their ideas of the suitable types of recreational development at the research area in a planning concept map (see Figure 81)[31].

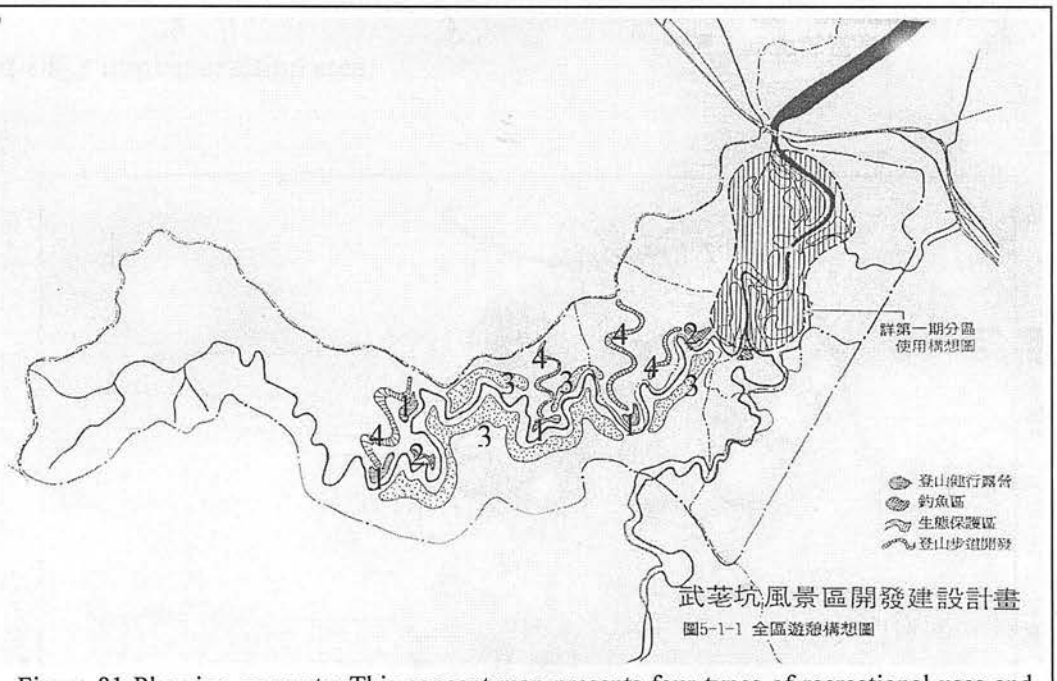

Figure 81 Planning concepts: This concept map presents four types of recreational uses and the suitable places for these activities outside the area of first-stage implementation, which is area A. These four types of uses are: 1. Hiking and camping. 2. Fishing. 3. Ecological protection area. 4. Mountain-climbing trials.

This planning concept of different recreation types is in accordance with the plans suggested in the 'The Undertaking Plan for the Development of Wu-Lao-Keng Scenic District'. This 'Undertaking Plan' provides general guidelines for the related planning and substantial development of this scenic district. According to the proposed 'Recreation and Facility Plan', it is suggested that the upper stream of the Wu-Lao-Keng River, which is the area before where the two river branches meet, should be preserved and thus, no immovable recreational facility could be built there.

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[31] This figure is from the Planning Report of 'The Construction Plan for the Development of Wu-Lao-Keng Scenic District' page 53 and is edited by the author.

The types of use and recreation at the upper stream area are more restrictive and must show respect to the nature. The main recreational facilities and more diverse activities are suggested to be arranged in the area where it is referred to as the area of first-stage implementation. As Figure 82[32] presents, facilities such as parking lots and camping sites, and areas for different kinds of activities are accommodated and planned at this first-stage implementation area.

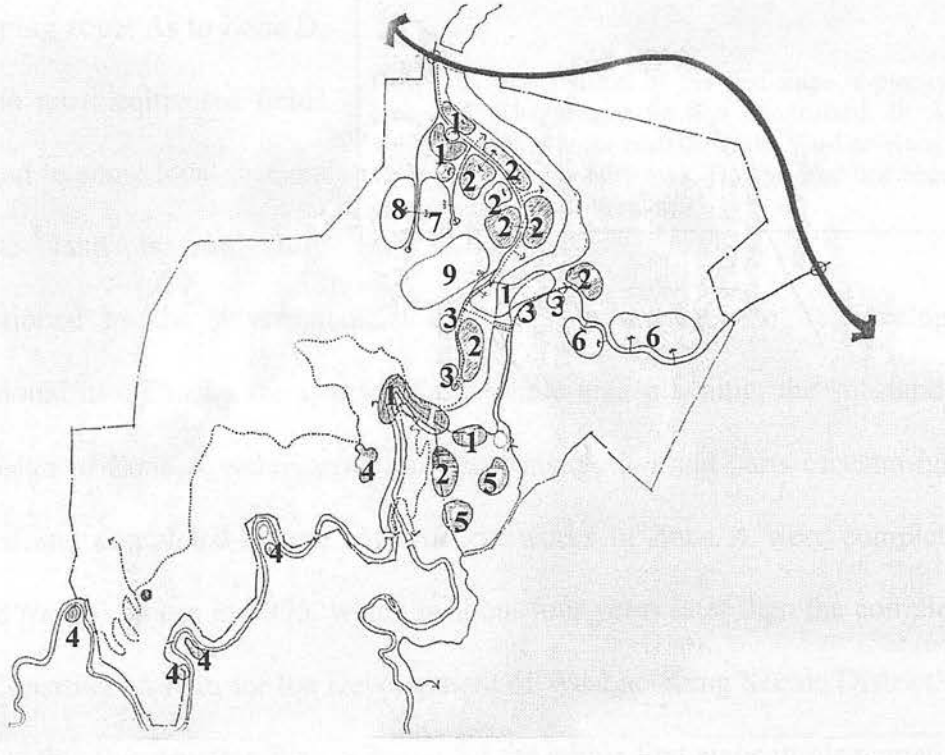

Figure 82 The plans for recreational development: This figure presents the ideas of recreational development at the first-stage implementation area. No1 is the area mapped out for riverside recreation use. No2 refers to the suitable places for campsites. No3 is the area suitable for parking lots. No4 is also camping area, yet refers to those located in the mountainous zone and planned to be smaller campsites. No5 stands for the areas that have special cultural landscape. No6 represents areas of larger lawns for leisure activities. No7 is the camping service area, which provides facilities such as shower rooms and toilets. No8 is the area used for hiking training. No9 is planned to be the ecology learning area.

[32] This figure is from the Planning Report of 'The Construction Plan for the Development of Wu-Lao-Keng Scenic District' page 54 and is edited by the author.

The plan for this first-stage implementation area contains four sub-zones, i.e. Zone A, B, C, and D as Figure 83[33] presents. These divisions are made according to the topography of the site. Zone A and Zone B are valley plain areas and were suggested to be first developed. Zone C is a remote area around an individual hill, which is planned as a secondary developing zone. As to Zone D, it is the most cultivated fields belonged to some local farmers. As the land is not fully requisitioned by the government, it becomes the last area to be developed for recreational use. During the course of the whole area planning, the substantial plan and design of Zone A were carried on into construction and parts of them had been fulfilled and completed. These construction works in Zone A were completed and opened for public use in 1995, which is about four years later than the completion of 'The Construction Plan for the Development of Wu-Lao-Keng Scenic District'. In the report of this Construction Plan, a layout for the whole first-stage implementation area, which included all the four zones, was presented to suggest the possible substantial plans for the recreational development (see Figure 84[34]). Since this layout is not a finalised one, only parts of the plans in Zone A were followed.

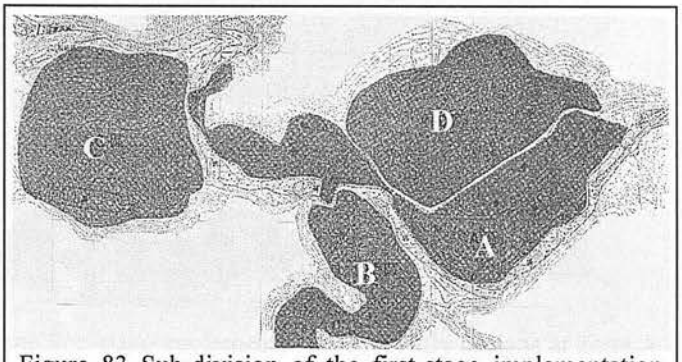

Figure 83 Sub-division of the first-stage implementation area – A: The area to be first constructed. B: Another valley plain area at the eastside of the Wu-Lao-Keng River. C: A more remote hilly area. D: The area had been most cultivated for agricultural use.

[33] This figure is from the Planning Report of 'The Construction Plan for the Development of Wu-Lao-Keng Scenic District' page 88 and is edited by the author.

[34] This figure is from the Planning Report of 'The Construction Plan for the Development of Wu-Lao-Keng Scenic District' page 93 and is edited by the author.

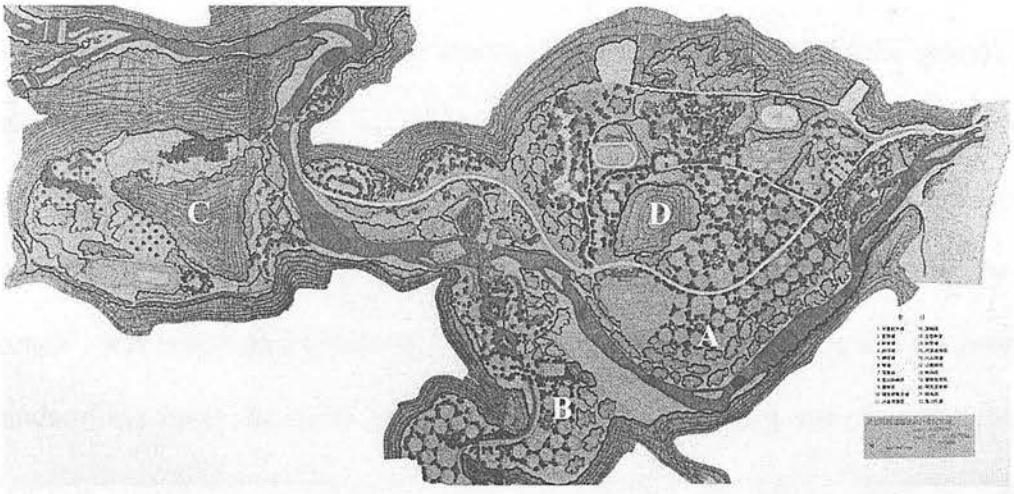

Figure 84 A proposed master plan for the first-stage implementation area: Only designs at Zone A are constructed, yet a few details are modified in the finalised plan. Although this master plan is just a suggested one, some of the plans at Zone B and Zone D are further developed into detail designs, such as B1: a riverside recreation area and D1: the ecology learning area. Nevertheless, these details were modified by the follow-up design team.

When comparing with the plan produced by the follow-up design team (see Figure 85[35]), it is clear to see that most plans shown in the suggested layout were modified. Yet, the planning and design principles lay by this project for the recreational development of the Wu-Lao-Keng Scenic District are still agreed and observed.

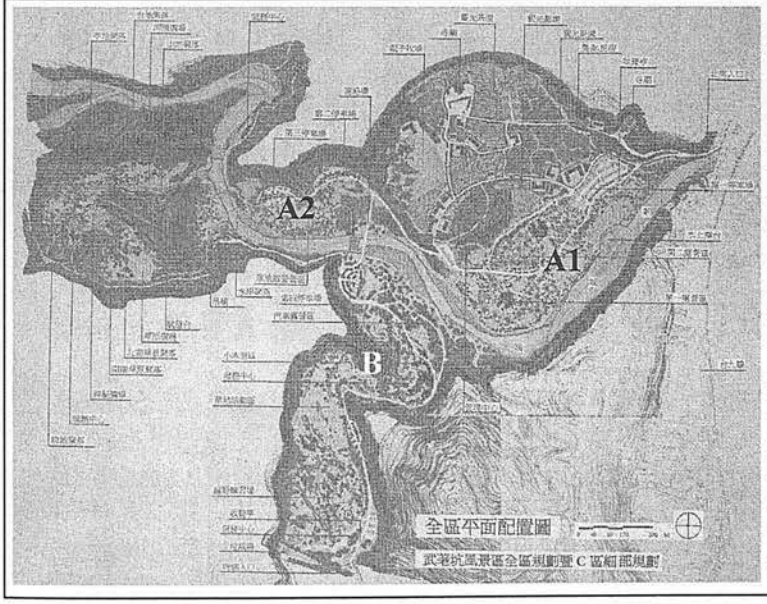

Figure 85 The revised layout of the first-stage implementation area: This layout is presented by the J-A K.Y. Landscape Planning Co. Taiwan Branch. This plan is proposed while the A1 area is constructed. The areas of A1 and A2 belong to the original Zone A area that had been constructed and is now open to the public. This follow-up plan regroups the A2 area to Zone C, which makes the designs at Zone C more connected to Zone A. As to Zone B, this area is extended to the east entrance of the Wu-Lao-Keng Scenic Distric. Plans at Zone D are largely modified and the existing orchards and farms are suggested to be turned into recreational farms for tourist to visit.

[35] This layout is taken from the Planning Report of The Wu-Lao-Keng Scenic District Campsite Landscape Planning and Zone C Detail Planning back cover page, and is edited by the author.

The planning and design principles and their practice

In order to maintain the value and health of the Wu-Lao-Keng River, recreational activities would have to be regulated first. Therefore, finding a balance between recreation demands and resource supply is an issue of great concerns in this project. According to the project's planning report, a planning method, the 'resource-users approach', was introduced to identify the unique resources of the site and the potential remands of the users. In addition, as the report goes on stating, the planning concept of 'carrying capacity' is applied to help evaluating the visitor pressure on the environment that is caused by different recreational activities. In this project, the recreational resources of Wu-Lao-Keng Scenic District were classified into three main groupings accordingly to the geographical characteristics of the site. Yet, the already existed recreational activities were not evenly spread in the areas of these three resource groupings. Since each resource grouping has its vantage and disadvantage points in serving different recreational uses, the design concepts of this project are expressed in a way as strategies to prevent inappropriate uses on the site and at the same time to provide alternatives for quality recreation. The valley plain area is regarded as an ideal place to accommodate a variety of recreational activities and thus becomes a development focus.

Within Zone A and Zone B, there are four areas with more levelled ground and easy access. As Figure 86[36] shows, five camp sites were planned at these levelled areas and three of them were placed in Zone A. Yet, in the final design of Zone A as Figure presents, these camp sites are reduced and the area planned for the second camp site is

[36] This figure is from the Planning Report of 'The Construction Plan for the Development of Wu-Lao-Keng Scenic District' page 66 and is edited by the author.

turned into a field of spacious lawn with a mounded platform for performance use. Nevertheless, the concept for the detail design of each camping area is not modified. Every camping area contains a pavilion, eight camp units, eight sets of table and seats, and a small circular area. The pavilion is designed in a particular way to serve as a cooking place. The camp units are placed in the form as an outer circle to surround the pavilion and each camp unit is arranged a set of table and seats. As to the small circular area, it is designed as a little sinking ground for people to sit around and have campfire.

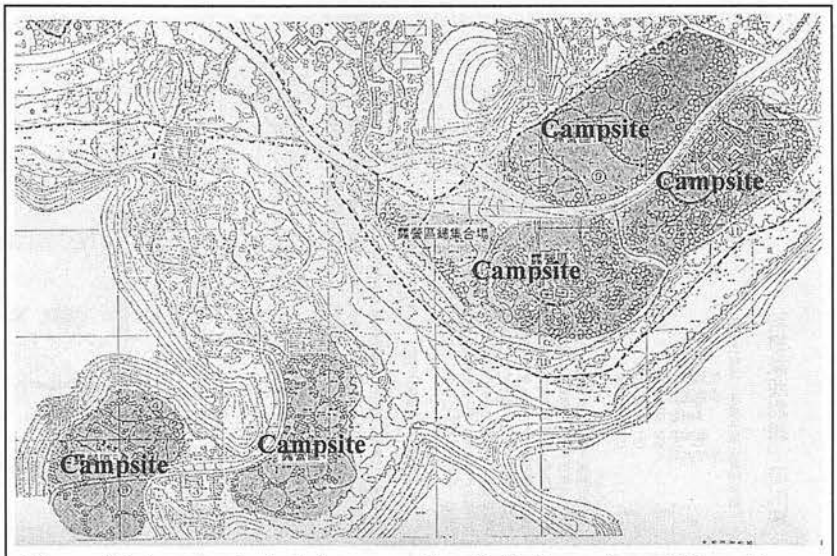

Figure 86 Areas selected for campsite: Both Zone A and Zone B are valley plain areas, which are more levelled areas and suitable for camping. Accordingly, three campsites are planned in Zone A while the other two are placed in Zone B.

Except the general space division and the detail design of the campsite, most of the completed designs in Zone A do not reflect much of the original plan. Most of the original plans are either simplified or not fulfilled. Accordingly to the original layout, a waterfront area is planned particular for children to play with water. As the detail design shows, the water is channelled from the river to form a naturalised pond (see Figure 87[37]). In this way, a safer place for waterfront activities is provided and people, particularly children, are encouraged to play with water in this pond. However, in the

[37] These figures is from the Planning Report of 'The Construction Plan for the Development of Wu-Lao-Keng Scenic District' pages 58 and 59, and are edited by the author.

completed designs, this waterfront area is replaced by a long piece of lawn with few trees planted around. This is probably because the original design is complex and cannot be constructed within the expected due day. Yet, the follow-up design made by another design team also reflects the concept of waterfront recreations. As the layout presents (see Figure 85), a stage is suggested to be built upon the river at the riverside for performance use. The current lawn is therefore believed to be a temporary design and is likely to be changed in the next implementation stage.

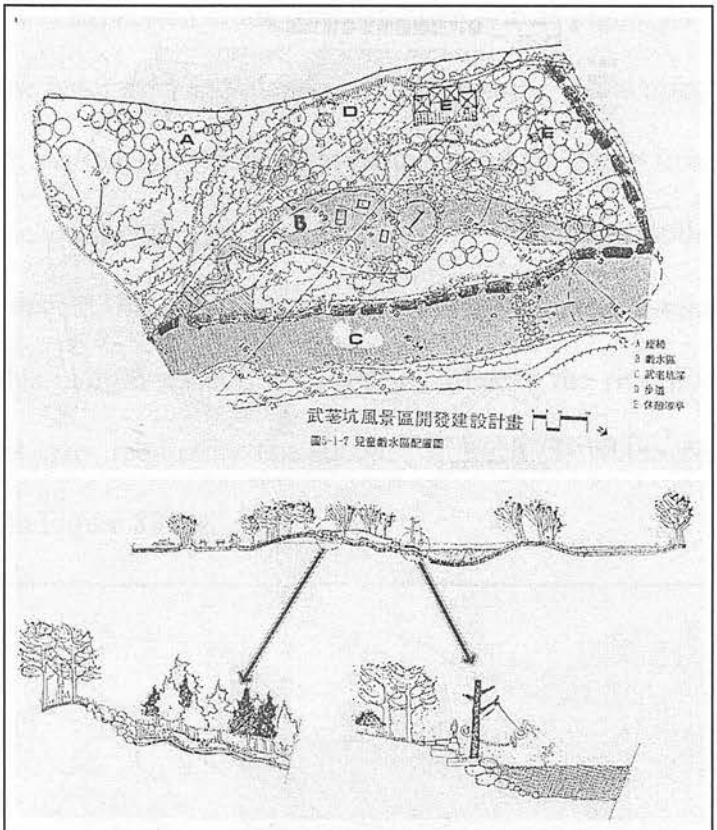

Figure 87 The riverside recreational area: a) This plan shows a detail waterfront design made particular for children. 'B' is a small naturalised water feature beside the Wu-Lao-Keng River, which is 'C'. Facilities such as benches, 'A', and few pavilions, 'E', are provided. 'D' is the walkway within this area (Above). b) Section of the waterfront area: This feature shows the space created for children to play with water. With suitable water level and defined space, it is therefore safer to children to play with water in this designed area than at the riverside. There are also places made for adults to watch over the kids and enjoy the scene (Below).

Although the design for waterfront activities is unfulfilled, another plan at the riverside is still carried out, yet it is not an easily perceived design. As it is shown in the project layout, a long and narrow area along the riverside is specified as the 'riverside preservation area'. In order to maintain the water quality and to protect the river bed, a ten-metre wide margin zone is set apart to form this 'riverside preservation area'. This margin zone is arranged between the river and the campsite

area. The design idea of this zone is expressed in the conceptual section as Figure 88[38] presents. By slightly changing the landforms and planting more trees, the visual effect of a spatial sequence is created. At the same time, the visitors are kept away from parts of the riverside area. As such, not only the visual landscape is enhanced, but the habitat of wild lives is also protected. Moreover, water and soil maintenance works could be done at the edge of this margin zone along some sections of the riverside where the maintenance works are required. The detail of such a water-soil maintenance work is expressed in Figure 88 b.

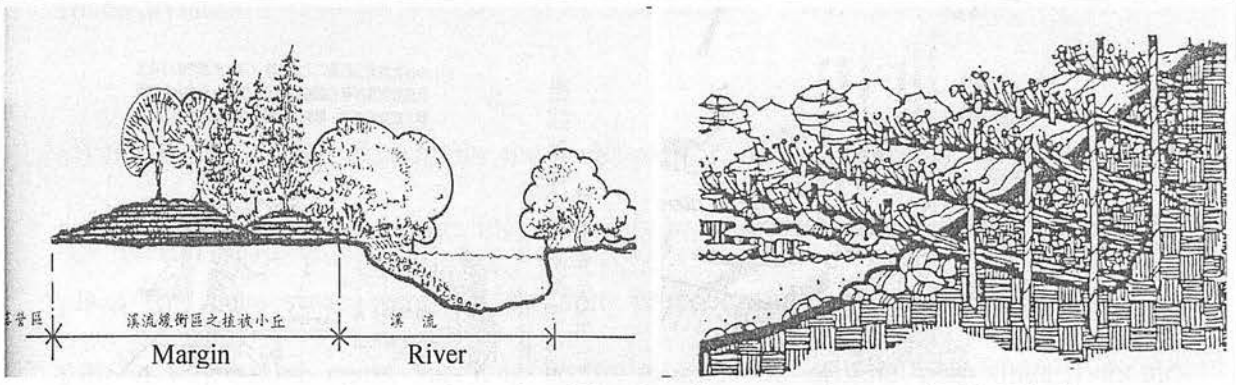

Figure 88 Riverside preservation area: a) Section of the riverside preservation area (Left): This figure presents the design at the margin zone. The planting design and the change of landform are the basic concepts expressed here. b) Detail section drawing of the riverside (Right): This figure is water-soil maintenance detail. It shows the concept of using plants to prevent water erosion.

While some planting designs are required for the 'riverside preservation area', no detail planting plan is provided in the project's planning report. Only planting principles are found along the discussion of the different types of space division on the site. Yet, when visiting the site, the visitors will find that apart from the recreational facilities, planting is the other aspect to be easily recognised as designed landscape. According to the planting principles, planting designs are expected to meet the functional requirements of different space types. Since every space type has its

[38] Both figure 11 and figure 12 are from the Planning Report of 'The Construction Plan for the Development of Wu-Lao-Keng Scenic District' page 73.

space characteristics, the required functions of planting are dissimilar and the plant functions are classified into three types. Using plants to create the buffer zone is one of these function types, and this can be perceived in parts of the river preservation area and at the places where conflict activity areas are adjacent to each other. Apart from this, plants are also used to provide shades and to define spaces. Therefore, sensible visitors will notice that trees were largely planted along the walkways, at the parking lot areas and around the campsites to give natural shads. Parts of the roads and walkways are also planted with hedges to enhance the liner space or to make a space division.

So far, the plans and designs for the north part of Zone A were discussed. As to the rest of Zone A and other zones, they will only be briefly reviewed together here as the plans for these areas were not put into practice and had been modified by the followed-up design team. Yet, it is worthy to study the original plan since it should also reflect the design concepts submitted to the competition. As the Wu-Lao-Keng River flows across the site, Zone B and Zone C are separated from the east riverside areas. Though Zone A and Zone D are also separated by a traffic road, it is not too difficult to connect them. Thus, two bridges were suggested to be built to connect Zone B and Zone C with Zone A. Service roads for vehicle uses were built in most of these zones except Zone C, and thus a few parking lots were provided and arranged at the suitable places. As to Zone C, a hiking track is mapped out to connect this area with Zone B. Since Zone C is a remote area, it is kept to its original state and only a horse-riding club and a riding practice field are planned here. In Zone B and Zone D, more recreational opportunities are provided including a variety of sports, an ecology learning area, tourist cabins and open-air campsites, and a streamside recreation area

etc. Few of these recreation types are developed into detail layouts (see Figure 89[39] and for example). Nevertheless, as it had been noted, none of these plans is realised.

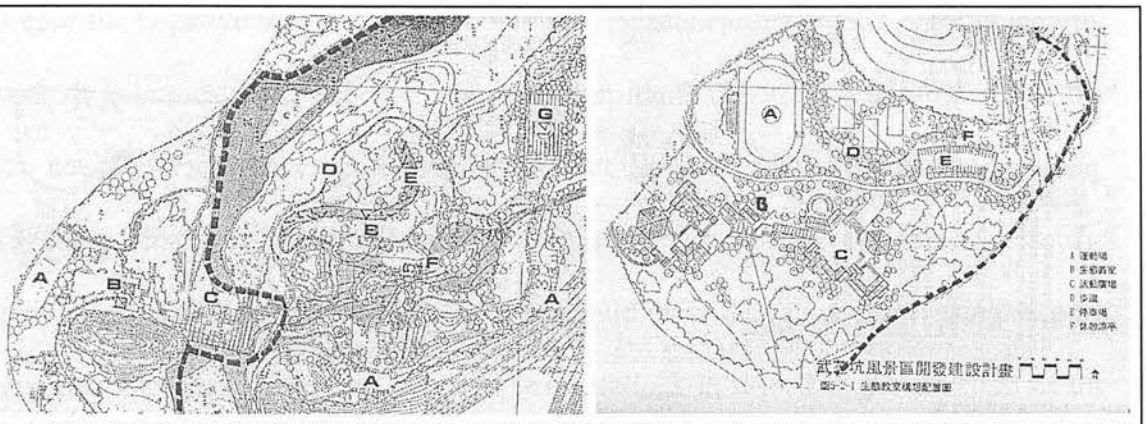

Figure 89 a) Detail plan for the riverside at Zone B (Left): This figure shows more detailed development of the Zone B area. A: Parking lots. B: Pavilions. C: Pedestrian walkway across the river. D: Other walkways around this riverside recreation area. F: The waterfront area. G: A shooting field. b) Detail plan for the ecology learning area at Zone D (Right): Zone D is designed with several sports fields and an ecology learning area, which is B. A is a stadium and C is a square for gather and some outdoor activities. D: Walkways. E: Parking lot. F: A pavilion.

Discussion and comment

Since this project is a construction plan for the recreational development of Wu-Lao-Keng Scenic District, there are inevitable requirements related to the social value field. Although the social concepts were not easily identified from the design concept text, the emphasis on the social value was obvious. In the concept text, the social concept 'amenity' is only implied in the idea of using the valley plain area for alternative recreational sites. This review affirms the application of the 'amenity' concept in this project, particularly in the planting designs. All the three required functions of planting reveal the concern for amenity. Trees were planted around the places where shades are needed so as to make the tourists feel comfortable and pleasant. Moreover, by considerate planting, spaces are better defined and connected,

[39] These figures are from the Planning Report of 'The Construction Plan for the Development of Wu-Lao-Keng Scenic District' pages 57 and 64.

and in this way, the visitors will not be discomfort in smaller places nor feel desolate in vast spaces. As to the buffer zone, it is also regarded as a planting design that helps to ease the negative visual and psychological impacts caused by the conflict activity types. It is interesting to see that functional considerations are not only related to the new social concept 'service' but can also reflect the concept of amenity. Yet, 'service' still can be distinguished from 'amenity' as it is based on rational analysis or scientific study to decide the function the design should provide rather than using a pure empathic approach to suggest the users' expectations in regard to the function of the design. Thus, the concept of 'service' is also expressed in this project.

According to the planning report, the site potentials and suitable recreational activities were studied before planning concepts were suggested. Figure 90[40] presents the different existing recreational recourses and their distributions. In addition, low-gradient areas and the existing walkways are also carefully marked down for detail planning. Then, the existing recreational activities are investigated and

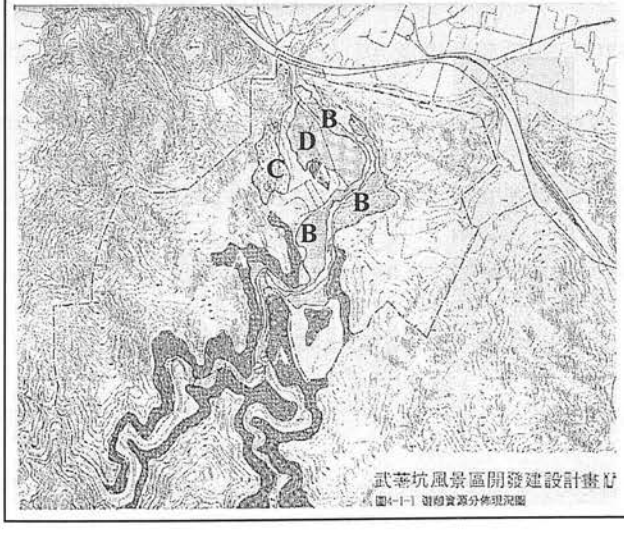

Figure 90 Recreational recourse distribution map: The planning and design team studied the site characteristics and presented their analysis of the recreational recourse accordingly. Different natural recourses are identified and mapped out to show the distribution of these recourses on the site. A is the darkest areas marked on the map to indicate mountainous areas and gullets. B, the riverside areas along the downstream of the Wu-Lao-Keng River, is regarded as waterfront recreation spaces. C refers to the areas containing cultural landscapes. D: Rural landscape areas.

[40] This figure is from the Planning Report of 'The Construction Plan for the Development of Wu-Lao-Keng Scenic District' page 37 and is edited by the author.

discussed in response to the studies of the site potentials. In this way, appropriate recreational activities and effective spatial arrangements are suggested. Moreover, since the government encourages young people to have healthy outdoor activities, sporting and educational types of activities are introduced to provide the visitors more options of healthful recreation. Therefore, the plan for an ecology learning area is proposed and a few sport fields are suggested to be built in Zone D and parts of Zone A and Zone B. Although these plans are not fulfilled, the idea to introduce new activities and the plans for sport facilities are expressions of the social concept, 'service'. Yet, because the ultimate goal of this project is to improve the recreational quality, the concept of service seems to be used as a means to deliver the same outcome of making people's lives better as the concept of amenity intents to achieve. The only difference between these two concepts is probably that the concept of 'amenity' leaves more room for subjectivity while 'service' requests objectivity.

Another landscape principle emphasised in this project is ecology. The most distinct ecological concept adopted is 'sustainability', even though words of 'sustainability' or 'sustainable' are not used to express this concept. At the concept sorting stage, 'sustainability' was already identified because the design statements refer to the continuity and preservation of the river's life. This review not only proves the use of sustainability concept but also gives insight into its relation to the new ecological concept, 'structure'. In the project's planning report, the idea of carrying capacity is introduced as a planning method to evaluate the environmental impact brought by different recreational activities. Its theory concerns whether the external impacts can be absorbed by the environment or not. If the intrusive factors change the essential characteristics of the environment and cause the environmental structure to collapse, it is beyond the carrying capacity of that environment. It is therefore understandable that

the design concepts were expressed according to the geographical groupings of the site because these groupings reflect the characteristics of the natural environment and are themselves the framework of this scenic district. Accordingly, to restrict certain recreational activities at the river area is regarded as a concern for the environmental structure as it was discussed in the previous chapter. As such, the concept of structure is manifested; yet it seems that this new concept is adopted for the sake of sustainability. If concerning for the environmental structure is intentionally applied as an approach to produce a durable design, it could be covered by a broad sense of the sustainability concept. In other words, the concept of structure can be understood as one technique to deliver stable and long-lasting environmental conditions.

Apart from 'sustainability', the concept of 'harmonisation' is also emphasised and clearly identified in this project. Since Wu-Lao-Keng Scenic District is decided to be developed for recreational use, human impacts on the natural environment is unavoidable and thus, the concept of 'harmonisation' is revealed throughout the planning and design of this project to resolve the conflicts between development and conservation. The use of the planning method, 'resource – user approach', is an expression of the design team's ecological concern for harmonisation. Accordingly, not all of the recreational demands can be satisfied and the user demands are only met when the resource supply had been evaluated and considered appropriate. In addition, the idea of carry capacity though is closely related to the concept of sustainability, provides a stance for recreational development on this scenic district. For example, while barbequing is regarded as an inappropriate recreational activity at the riverside area, it is allowed to happen at the specified campsites because the area of valley plain is evaluated as having the capacity to accommodate this activity. The plan and design of the 'riverside preservation area' is another expression of the humanisation concept.

This riverside preservation area is designed to be a margin zone to separate the more intense human activities from the more natural area. In this way, the disturbance brought by the human activities to the wildlife habitats will be reduced. As such, both the interests of human and of other creatures are taken into consideration and somehow reconciled.

The design of the riverside preservation area also reveals the aesthetic concepts of improvement and conservation. Since the east-riverside landscape is more dynamic, the landform of the margin zone at the west-riverside is made to reflect the hilly landscape. In this way, a visual effect of a continuous spatial sequence is created. This is regarded as an expression of the improvement concept because the change of the landform is out of the dissatisfaction toward the ordinary scenery of the west-riverside area. Yet, to make it looks like a reflection of the east-riverside landscape shows the designers' appreciation to the natural scenery. As such, the researcher believes that the concept of conservation is also used here. In addition, the most obvious aesthetic concept adopted in this project is the conservation concept. Although this project shows little emphasis on the aesthetic value, the concept of conservation is still evident and not too difficult to be identified from the limited statements. According to the project brief, Wu-Lao-Keng Scenic District is stated as the most distinctive scenic district in I-Lan County because it has outstanding natural landscape of both beautiful mountain and river scenery. Thus, this district is regarded as having great potential to develop tourism and is suggested to be made as a scenic park. It is therefore believed that the major aesthetic concept applied in this project is the concept of conservation. As to the idea of making changes on the appearance of the water-purification pond and the de-silting dam, though it was identified as a notion of the improvement concept, this study finds no useful information to comment on this idea. After all, it is

merely a suggestion without detail plan and design. Nevertheless, after visiting the site, the researcher believes that this idea may straddle both the aesthetic concepts of improvement and accommodation. The dam though is not a huge and unpleasant manmade construction, is a noticeable object. Therefore, if the feature of such a construction can be modified into a more naturalised form, it will fit better into its natural surroundings and becomes an interesting scenic spot. If not, its appearance could be made more moderate to the point that people will hardly notice its existence.

7.6 The strengths and weaknesses of the Taiwanese landscape practice

So far, the four case studies are completed. Many insightful and interesting findings are discussed along each case study. Taiwanese landscape practice is better understood from this exploration and its strengths and weaknesses can be identified and discussed now. Since the comments here are made in terms of the core landscape theories, the discourse paradigm of Dr. Thompson will be used to lead the discussion; and the differences between the new concepts identified in the Taiwanese projects and the paradigmatic discourse will be discussed to present these comments.

As the case studies reveal, all the three new concepts are overlapping their related concepts suggested by the discourse paradigm to a certain degree. This shows that the E, C & D model of Dr. Thompson is not only useful in addressing the three broad landscape theory fields as the sources of core landscape principles but also applicable in identifying the landscape principles adopted in Taiwanese landscape practice. The nuance between the new concepts and the paradigmatic discourses also shows the special applications of landscape theories in Taiwan. For example, Taiwanese landscape designers tend to use the concepts of 'pleasure' and 'service' to achieve amenity, and thus the social concept of 'amenity' is revealed and applied in either the

aesthetic or social aspects of a project in Taiwan. This is largely due to the division that Taiwanese designers made on subjective and objective approaches. Both the concepts of 'pleasure' and 'service' are therefore the outcome of this division. Taiwanese landscape designers are more comfortable to be subjective when asserting their aesthetic ideas than stating their social concerns. Accordingly, 'provision of facilities' and 'introducing new activities' become dominate social approaches in Taiwan as they are often suggested after systematic analysis or rational reasoning about the functional requirements of the project. Yet, these approaches are still empathetic as they are based on the designers' understanding and interpretation. The concept of 'service' can therefore be regarded as a variation of the concept, 'amenity'. When stressing their differences, 'service' can also be regarded as a concept between the concepts of 'amenity' and 'consultation/participation'. In this view, it is not too difficult to explain why the concept of 'consultation/participation' is so weakly applied in Taiwan. This is very likely because the concept of 'service' provides Taiwanese landscape designers a channel to avoid directly engaging with the ultimate users of their designs. Since the designers rely on objective analysis of the potential user needs, their design ideas at the social aspect are often accepted and welcomed by most of the clients and ultimate users. Although users may still have their ideas on improving the design as revealed in case study 3, most Taiwanese people are not too critical at the designers' decisions. This is probably because Taiwanese people are not certain about what landscape architecture is and feel less confident to challenge the landscape professionals or voice their ideas. Therefore, the landscape designers in Taiwan cannot ignore the concept of 'consultation/participation' and must prepare themselves to cooperate with the general public, especially those who are going to be the ultimate users of their designs.

As to the concept of 'structure', it is really a concern for the durability of the design, and is therefore overlapping the concept of 'sustainability'. Yet, this concept is identified as Taiwanese landscape designers are not confident to express their concern for a sustainable environment. This is probably because most Taiwanese landscape designers feel uncertain about the ecological principles/theories. As the sample cases present, the ecological aspect of design is less emphasised than the other two aspects. In addition, many ecological ideas are ambiguous or less evident in the design. Most ecological ideas identified in Taiwanese landscape practice are related to the concept of 'harmonisation'. Although some designers do refer to 'sustainability', no specific approach or principle is discussed to deliver a sustainable outcome. Accordingly, the concept of 'structure' is understood as the approach that Taiwanese landscape designers use to express the concept of 'sustainability'. Yet, the concept of 'structure' is not as aspiring as the concept of 'sustainability', and it shows that the attitude of Taiwanese landscape designers is not so much reformist but a step toward it from a techno-centric ground, i.e. the stance of 'harmonisation'. The case studies above also reveal that in Taiwan, the landscape practice at the ecological aspect is restricted as pure environmental conservation work is often not recognised as landscape works. Environmental scientists and engineers are commissioned to study the natural environment before the plan for development is defined. Accordingly, it is reasonable that the concept of 'health/integrity' is not identified in the sample cases. In short, Taiwanese landscape practice at the ecological aspect is not very mature and most landscape designers are still exploring and learning while practicing.

Comparing to the social and ecological aspects, the aesthetic approaches that Taiwanese landscape designers adopt do reflect all the aesthetic discourses of Dr. Thompson; and in most cases, the designers reveal more than one aesthetic concept.

In Taiwan, many designers like to use imagination in their design and make the projects as sort of art works. Apart from this, concept of 'improvement' is commonly applied and becomes another dominate aesthetic approach in the landscape practice. The aesthetic aspect is indeed better developed than the other two theory fields in Taiwanese landscape practice. As the case studies reveal, the landscape designers are more confident when referring to their aesthetic ideas. In addition, the spirit of design in many cases lies in the aesthetic ideas. The only thing that Taiwanese landscape designers need to be careful is about the design stereotypes they are using. Sometimes a certain type of design, such as Chinese garden or Japanese dry garden, is made for the sake of a need for an attractive scene. The designers probably have to study more about the meanings behind the landscape design stereotypes and use them not only because of the designers' preferences.

Along this discussion, the strengths and weaknesses of Taiwanese landscape practice are revealed. The strong points are that: the designers are confident and skilful in asserting their aesthetic ideas; they also pay attention to the user needs by analysing the functional requirements of the cases; most designers respect the nature and are willing to design with nature. In contrast, the weak points are: the ecological aspect is less understood, and thus will require more study in the futhre; the social concept of 'consultation/participation' is largely ignored; some landscape design stereotypes are taken for granted and applied without thoughtful reasons. Apart from all these points, this study reveals also that Taiwanese landscape practitioners are consciously aware of all the core landscape theories and are applying these theories in practice. Although Taiwanese landscape practice is still not mature, this study will commend the landscape practitioners for their effort to advance this field and provide quality landscape in Taiwan.

8 SUMMARY AND CONCLUSION

8.1 Research aspects and findings

This thesis presents a research study concerned with the theoretical principles of landscape architecture and their applications in a specific cultural context, the Taiwanese context. This research was initiated because the landscape profession in Taiwan is young and has suffered from being misunderstood by people outside the field. The lack of a clear professional profile is a common situation most landscape architects face in many other countries; yet, in Taiwan, many landscape practitioners regard it as the cause of low quality landscape projects. In order to clarify the stance of landscape architecture, and to provide Taiwanese landscape designers with a basis to examine their works, this research seeks to explore the core theoretical groundings of the field and their applications in Taiwan. Since this exploration concerns the universality of core landscape theories, the relations between the shared universal theories and the specific local/cultural theories should also be taken into account in the study. By examining fifteen Taiwanese landscape projects and four of them in-depth, the local/cultural factor is added to the exploration and at the same time, the strengths and weaknesses of landscape practice in Taiwan are revealed. All these research aspects have been explored and presented in the previous chapters. Now, the findings can be summarised as follows.

Firstly, the core landscape theories are identified through a literature study, which contains a close review of Dr. Thompson's research and an interview with Mr. Sijmons, regarding his landscape approach. While Dr. Thompson's research presents a tripartite framework, i.e. the E, C & D model to suggest three positive landscape value fields, Mr. Sijmons points out the theoretical reference of these fields to the original statement of Vitruvius. Accordingly, the three value fields, the aesthetic, the social and

the environmental, are regarded as the potential sources of the core theoretical groundings in landscape architecture. Through a theoretical sampling process, the universality of these landscape value fields is affirmed as Dr. Thompson's E, C &D model is applicable in terms of identifying and accommodating various design concepts presented in the sample cases, i.e. fifteen Taiwanese projects awarded as good landscape works. All the design ideas with local/cultural concerns can be sorted under the aesthetic-social-ecological classification, and while they are more about aesthetic concerns, some are related to the social or ecological aspects. Thus, it is believed that local/cultural concepts could be aesthetically-bound as well as socially- and ecologically-bound.

The second finding is about the applications of these core landscape theories in landscape practice, particularly in the Taiwanese context. When analysing the sorting results of the sample cases (including both the initial sorting and the evaluation), the way each core landscape theory field is applied in Taiwan is slightly different from the concepts suggested, by the discourse paradigm of Dr. Thompson. Three new concepts are therefore suggested according to the comparison between the design ideas that are not easily sorted under the paradigmatic discourses. They are named as 'Pleasure' in the aesthetic field, 'Service' in the social field, and 'Structure' in the ecological field. These concepts are regarded as particular Taiwanese applications of the core landscape theories and they are useful for further exploration of landscape practice in Taiwan. The cases showing a high designer emphasis on each core landscape theory are also compared, to explore the way the core landscape theories are well considered in landscape practice. This analysis though was expected to reveal the way optimal trivalent design (the case when all the three landscape theoretical aspects are fully addressed) is achieved, however, it is still insufficient to provide explicit suggestions

for making the ideal design or to explain why most landscape designers fail to place equally high emphasis on all the core landscape value fields. Yet, the analysis here shows that the three landscape values/principles are used in a different way for different purposes. Ecological principles are more land-oriented concerns that tend to be used at more strategic planning aspects of landscape work to restrain certain developments on the land, or for long-term management. Social principles can be understood as user-oriented concerns, to be used at both planning and design aspects of the work as a response to the project objectives, or to define the potential need of the user or the function of the project. Aesthetic principles are more subjective concerns, which are often designer- and/or client-oriented. They tend to be adopted in detail and to provide concrete operations at the design aspect of the work, to address the meanings of the spatial arrangement or to perform a particular design style. This research then uses a spiral-shaped conceptual diagram to present these patterns of application of the core landscape theories.

Finally, a further exploration about the Taiwanese applications of core landscape principles provides a better understanding of landscape practice in the country. Most Taiwanese landscape designers are less confident in the ecological design aspects of their work. The concept of 'sustainability' is not well-articulated in their practice and the concept of 'structure' is often expressed instead to neutralise the reformist stance of concern for a sustainable environment. This close review of a few more landscape projects reveals that many landscape designers in Taiwan prefer a neutral stance in applying the core landscape principles. The concept 'service' also reflects such a neutral attitude and it is in between the conservative concept of 'amenity' and the reformist one of 'consultation/participation'. Taiwanese landscape designers like to act as objective and unprejudiced as they can, and they only feel comfortable when

addressing their aesthetic ideas. Accordingly, the social concept, 'amenity', is carried out in both the aesthetic concept of 'pleasure' and the social concept of 'service' in Taiwan. It is interesting to see that Taiwanese landscape practitioners do apply the core landscape theories, which shows that they are aware of the importance of these core landscape principles. The merit of the Taiwanese landscape practice therefore lies in this awareness and the landscape professionals' efforts to apply the core landscape theories to achieve landscape quality. Yet, the weakness is that they tend to hold on to certain concepts or approaches and as a result, devalue other equally useful concepts. This also reflects the imperfection of the Taiwanese landscape practice in understanding and using landscape theories.

8.2 Implications and future researches

Once this research is completed, the implications of the new understandings gained from the study can be discussed. As the review has shown, landscape architecture is becoming more diverse in its development and specialisation. Knowing the shared theoretical groundings of the field therefore helps to strengthen the self-image of the landscape profession and at the same time, it provides a coherent basis for the discipline to keep developing an even greater variety of specific local/cultural landscape theories. In Taiwan, as presented in the sample cases, there are special design approaches reflecting cultural and/or traditional inheritance. Chinese garden stereotype and Feng-Shui principles are perceivable in a few cases. Nevertheless, these ideas are presented as fragmental applications of certain cultural design theories or principles. Although these cultural theories may have only partial emphases on certain core landscape value/s, there is a possibility to develop them into an advanced cultural/local landscape approach that would take all the core values into account. Mr. Sijmons' landscape planning approach is one example that reflects the Dutch planning

tradition of the 1960s of a great ecological concern, yet at the same time, it re-addresses the need for development, rather than merely conservation on the land and the importance of applying aesthetic ideas in the planning process. Accordingly, the Chinese garden design approach for example, while it reflects strong aesthetic values and an admiration of nature, it could be further developed to strengthen its ecological stance and to consider the social value aspect more. In this research, though Mr. Sijmons' approach is regarded as an exceptional local landscape theory/approach that aims to emphasise all the core landscape values, it does show the potential of making trivalent landscape design by advancing specific cultural/local landscape approach. To develop the existing cultural/local landscape theories on the basis of the core landscape theories, not only provides a channel to create the desirable quality landscape works but it also helps the designers to avoid eclipsing local identity.

In this research, the way to create an ideal landscape project that reflects all the three positive landscape values is not fully explored, as the universality of the core landscape theories and the relation between universal and specific landscape theories have to be studied first. The sample cases are, therefore, selected to explore these aspects and they are potentially insufficient to reveal the way optimal trivalent landscape works can be achieved. Although analysing these cases also reveals interesting insights into the conditions each core landscape theory is emphasised, there is not enough information to explain why landscape architects fail to emphasise all three landscape value aspects, while they already pay attention to all of them. The patterns of the conditions each core landscape value emphasises does, on the one hand, help landscape designers to evaluate their design concerns, yet on the other hand, it seems to explain their partial focus on certain value aspects as every design case is

different and there could be prerequisites for different types of landscape projects which may restrict and infer the designers' concerns. Accordingly, while it is agreeable that good landscape projects show proper designer considerations of all three core landscape value aspects, how landscape designers address the balance between these values and how these values are fully considered in a landscape work remains unclear and requires further exploration. This research shows that while Dr. Thompson suggests the ideal landscape work is made by maximising all three positive landscape values, Mr. Sijmons argues that landscape quality is achieved, not by optimising these three quality aspects, but by an effort of paying equal attention to each landscape value aspect. Although Dr. Thompson and Mr. Sijmons hold different views regarding the degrees of emphasis each landscape value should have in a landscape project, they both agree that the quality of landscape works is achieved when all these core values are taken into account. Dr. Thompson (2000a: 297) states that 'the best landscape architecture...would be found where aesthetic, social and environmental issues were simultaneously addressed', and Mr. Sijmons refers to a nice combination between the three landscape qualities made by a sort of tacit and mysterious design process. As discussed so far, not only the way all the core landscape values are addressed in a landscape project remain indefinite, there could also be various approaches to address a good combination between the core landscape values; and thus these are the landscape research aspects that landscape researchers can look into.

8.3 Potential applications

The three research inquiries proposed at the beginning of this thesis have been explored and answered. Since this research concerns landscape practice in Taiwan, the potential applications of the research findings will be discussed, particularly in

advancing the Taiwanese landscape profession. In Chapter seven, the core landscape values and their sub-categories suggested by Dr. Thompson's discourse analysis were used to explore the strengths and weaknesses of the landscape practice in Taiwan, which is itself a demonstration of the potential application of the E, C & D framework in evaluating the landscape practice in a specific cultural/local context. Apart from this, understanding the core landscape values also benefits the landscape education. As education institutes are the only formal channel to foster future Taiwanese landscape professionals, landscape education is important and responsible for the landscape practice in Taiwan. Thus it demands a sound and effective course structure. Some landscape educators point out that landscape education in Taiwan is centred on landscape design course with broad supplementary courses on relevant theories (Fang, 2000; Kuo, 1999). Landscape students have to learn relevant knowledge without a baseline against which to examine their learning purposes. Moreover, since landscape design is taught as an independent course, courses related to landscape theories and practice are not followed up or connected to the exercises in the design course. As a result, students become more and more superficial in terms of their professional knowledge and skills. Many educators have been aware of this problem and suggested that students need better training to acquire professional competence (Ling, 1998; Kuo, 1999; Wang, 1998b; Wang, 1999). In addition, it was also suggested that each landscape school should develop unique courses to train students as specialists in different aspects of landscape work (Ibid). The core landscape theories could suggest the basic required courses for landscape education and serve as a guideline for landscape schools to examine their curricula. On the basis of the core landscape theories, different landscape schools could develop different aspects of landscape theories and their relevant techniques, according to each school's focus and objective.

According to Stiles' discussions on the need to find universal theories in landscape architecture (2004a and 2004b), having a commonly accepted theoretical basis will strengthen the identity of the landscape profession, and at the same time, provide a base to appreciate various local richness and gain the full benefit from diverse local landscape theories. Likewise, in terms of landscape education, having a better understanding of the shared landscape theories will unify different landscape schools under the same fundamental base as a distinct academic discipline, while encouraging specialisation within the field. In this research, the shared landscape principles, though, they were not further developed into a more integrated theoretical foundation, they were applied and they proved useful in understanding the Taiwanese landscape practice. This can be attributed to the E, C, & D framework of Dr. Thompson as it provides useful sub-categories of the core landscape theories.

According to the research findings, this research concludes that the three landscape value fields i.e. the aesthetic, the social, and the ecological, as suggested by Dr. Thompson, can stand for the shared theoretical principles of landscape architecture as they are broad enough to accommodate specific local/cultural landscape theories. Moreover, local/cultural design ideas, instead of competing with or standing superior to the core landscape theories, are complements to the universal theories and can provide landscape designers with more interesting ideas and enrich their works. As to Taiwanese landscape practice, although the profession is not mature when examined by the design approaches applied, most designers do take into account all three quality aspects and they are applying more than one aspect of core landscape theories in their works. Hopefully, the exploration presented in this thesis can help landscape architects to better understand their field and can provide Taiwanese landscape professionals with useful insights to improve their theory and practice.

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APPENDIX I: INTERVIEW QUESTIONS

I. General Q:

1. What do you think the profession of Landscape Architecture is?
   -- In your opinion, what is the role of Landscape Architect?
   -- What does the profession of Landscape Architecture encompasses/involves?
2. What kinds of professional skills do you think a landscape architect must possess?
3. In the field of Landscape Architecture, what do you think is the relationship between planning and design?
4. Is it easy to differentiate Landscape Architecture from other relative professions such as urban design, town and city planning? What is different between them and what do you think the main differences are?
5. Do you think Landscape Architecture has any unique or special contributions that other professions cannot bring to society? If it has, what is that?

II. Q about the '...Strategy' article

1. In your article, you ever mentioned that 'future landscape quality will depend on the possibility to create a new coherence among economic, ecological and aesthetic qualities'. Why do you think so and do you also imply that there is some conflict between these qualities?

-- What is your opinion on the "new coherence" among these qualities?

2. You also emphasized that 'equal' attention to be paid to these three aspects. Why it is important and what do you mean by 'equal attention'? What kinds of attentions you think are important and need to be considered according to each of these three aspects? Is your emphasis only on Planning or does it includes Design as well? If your emphasis is both on Planning and Design, will any consideration change or differ in order to meet 'equal attention'?

-- If one quality is ignored, do you think the result will still be good?

-- Is your emphasis on these qualities only on the planning part or the design part of a project?

III. Conceptual Q

1. Could you briefly explain your opinion on the meaning of the three qualities to the professional work i.e. a conceptual definition of aesthetic, ecological and economic quality?
2. As you mention in the article 'landscape cannot be left to the free interplay of social and economic factors', why you didn't specify social aspect as one of the quality requirements? If social aspect is included in the economic quality, how do you rank social and economic factors in it?
3. Do you think there is kind of interaction/interference between the conceptual meaning of each quality aspect? To what extent do you think the three aspects might influence each other's conceptual meaning?

IV. Technical Q

1. When you deal with a project at a regional scale from landscape planning to detail design, is there any prior consideration among ecological, aesthetic and economic concern?
2. Will all the three quality requirements be concerned at every stage in a regional planning and design? If it is not, in what occasions will any of them be ignored?

APPENDIX II: TABLE FOR SORTING AND INDEXING DESIGN IDEAS

Project 1: Luo-Tung Sport Park of I-Lan County

A. Design Concept:

With water and greenery interweaved into a spacious and gently changing topography, this leisure-type sport park is presented as the first stride taken for the environmental greening campaign of I-Lan County. This park aims to provide the residents of I-Lan County a place for relaxing and leisure activities in their daily life. Within its ample green-space, the place is a highly adaptable and offers the publics a space to do activities freely. At the initial stage of survey, it was surprisingly discovered that the green space is extremely rare whether in Luo-Tung town or in I-Lan city; and moreover, the composition of the flora landscape is quite simple. The construction of the park is located right at the centre of the whole greening-promotion scheme of I-Lan County.

The project's basic design principles are as follows:

1. The expression of concepts in spatial structure – The Jade Hills and Projected Axes.
   The basic concept underlying the whole design layout of the park is displayed from the nine chain-like "Jade Hills" in the north and the park's main entry. To look into the surrounding scenery from the Prospect Square, one will feel that a green-charm coming from the distant mountain beyond the Lan-Yang Plain is focused into the park centre by the leading of the Jade Hills, and then burst out and spreads over the whole county.

2. The smooth and gentle topography – The digging of a pond and forming of hills.
   Making use of the ample ground water of the site, a pond was made, and then the excavated soil was used to form the hills. Hence, a smooth and gentle topography was shaped to provide people a place for leisure and exercises.

3. To bring in the four-deity idea of the traditional Chinese position in design – The East, West, South and North axes and four deities.
   Out of the consideration of indigenous Taiwan character, the idea of the four positional deities is introduced into the space composition. The deities of Blue-dragon, White-tiger, Red-sparrow and Black-force representing the four cardinal directions are correlated to one another. In order to make clear directional character, defined axes are drawn from the centre to the four directions and the gorgeous natural rock from the local quarry in Taiwan is used to present it.

4. Presentation of the Taiwan scenery that is shaped by water-erosion – from the Lan-Yang Spring to the Pattern Shore.
   An important theme of this park is to make use of the ample ground water of I-Lan Country to present water scenery. The spring emerging secretly from the mountain increases gradually in volume as it flows and ends up in the lake, which is symbolised as the sea. The whole tableau is used as a metaphor to tell the story of the water's life. Furthermore, the famous water resorts and scenery in I-Lan and Taiwan are also introduced and deployed within the water's story.

5. Plan of plantation for the first step of environmental greening – Introducing indigenous plant species and sub-tropical vegetation.

   The aim is to make the outcome of the plantation plan an indicator for future greening in I-Lan Country. Besides introducing indigenous plants into the design at the Jade Hills, the planting design also concerns that a high ground water level is unsuitable for the growing of sub-tropical vegetation. In response to this, an experimental planting was made at the turf of higher filling ground; and some of the plants are blooming.

B. Classification of the design ideas

Value Discourse	**Classification and Evaluation Grade**
Aesthetic values	High
Discourse of Conservation	None
Discourse of Improvement	None
Discourse of Accommodation	None
Discourse of Artistic Expression	1.The Jade Hills and Emitted Axes 2.The orientating axes and four deities 3.The Lan-Yang Spring water scenery
Aesthetic discourse outside the paradigm	1.Using local material for aesthetic expression (cultural/local)
Social values	High
Discourse of Amenity	1.A place for relaxing and leisure activities 2. Reforming the topography
Discourse of Consultation and Participation	None
Discourse of Social Change	None
Social discourse outside the paradigm	None
Ecological values	Low
Discourse of Harmonisation	None
Discourse of Sustainability	None
Discourse of Health / Integrity	None
Ecological discourse outside the paradigm	Respect for ecological structure: 1.Experiment of using indigenous plant species 2.Provision of green space
Other values	None

Project 2: Landscape Construction of Ming-Chih Forest Recreation Area

A. Design Concept:

'Ming-Chih Forest Recreation Area' is thought of as the first Forest Recreation Area, which is designed after the manner of 'Gardening'. The site is divided into the five sub-areas of: Ming-Chih surroundings, Tzu Garden, Ching-shin Garden, Chueh Garden and the Forest-fairy-tales labyrinth.

1. Ming-Chih surroundings.

   The arrangement of dried trunks of red cypress trees in the pond of Ming-Chih reflects the great natural whitewood of the surrounding forest and evokes ancient remnant wood. Moreover, the mountain peaks of the northwest background resemble a brush-pen rack (therefore, it is named "Brush Bin Peak"), and by contrast, the pond,

Ming-Chih, will look like its ink-stone and the dried trunks as its brush pens. The landscape is formed in similarity to a propitious formation in Fou-Shui and brings in a scene with atmospheres of clearness and wonder, at the same time antique and grotesque.

2. Tzu Garden.
   a) Stone steps and wooden-framed walkway.
   Stone steps diverging from the Ching-shih Garden ascend with a sense of getting into woodlands. And the wooden-framed walkway winding around the Tzu-hsiao Pavilion leads to the mountaintop.
   b) Flora Garden.
   Using the existing topography, a dry garden was created with azalea and camellia planted all over the garden and a tea kiosk built in a simple and antique style.
   c) Tzu-hsiao Pavilion.
   Being located at the highest point of the Ming-Chih scenic area, the pavilion serves as a place to overlook the Ming-Chih seedling garden and the panorama of the pond.
   d) Shui-chin cave.
   'Shui-chin' [a water music instrument] is originated from the Japanese Chado [the Japanese tea ceremony]; and the Shui-chin cave is dug out making use of the natural topography. The sound of Shui-chin [which is a water music instrument] will be extremely clear and transparent to cleanse the visitor's secular spirit.
   e) Lagerstroemia subcostate valley.
   This area is named after the 100-year old Lagerstroemia subcostate in the valley.

3. Ching-shin [tranquil rock] Garden.
   'Ching-shin Garden is based upon the painting of 'Fu Chun Shan Chu Tu' [which means 'Abundant spring mountain life']. The antique and simple spirit of the late era of Tang dynasty is introduced here and the design approach of 'gardens within a garden' is employed to present a naturalised scenic garden.
   a) Tai Ting [Lichen Garden].
   With the furry moss all over the ground and a few fallen dried trunks, which perform grotesque and threatening gestures, a special scene is made.
   b) Chu-shui Ting [garden of crooked water].
   In Chu-shui Ting, the 'Liu Shang Ting' [flowing brook pavilion] is set aside a crooked water path for people to watch water gently flowing around.
   c) Fu Chun Ting [garden of abundant spring].
   This area is under the cliff of Tzu-hsiao Pavilion and by the shape of the mountain a scene is created with a waterfall and a pond. The pavilion, 'Chan Ting' is set to separate this water feature from 'Shin Ting', the adjacent dry garden. In the disposition of this garden, the pond and the waterfall are the main scene, which is the most interest part of the garden.

4. Chueh Garden [Fern Garden].
   Because the peacock pines of the Chueh Garden provide dense shade and humidity, many species of ferns grow there exuberantly. Hence, in the Development Plan of Ming-Chih Forest Recreation Area, the name for this area was changed to 'Chueh

Garden' [which means Fern Garden]. At the planning and design stage, a particular sense of space given by the vertical manmade peacock pine forest is applied to form a three-dimensional axis so as to present the depth of mountainous space. There are two wooden-framed walkways here. One goes from the accommodation area straight to the pond and includes a desk and facility of interpretation signposts. The other is divided into two paths, which form a three-dimensional and double-deck wooden-framed walkway around the forest and that ends at a pavilion.

5. Forest-fairy-tales labyrinth.
   The concept of the 'Forest Fairytale Labyrinth' is to use the matrix planting character of the man-made forest to plan and construct a forest labyrinth with a matrix form.

B. Classification of the design ideas

Value Discourse	**Classification and Evaluation Score**
Aesthetic values	High
Discourse of Conservation	None
Discourse of Improvement	None
Discourse of Accommodation	None
Discourse of Artistic Expression	The symbolisation of ink-stone, the brush pens and some grotesque scenes. An appeal for sensate satisfaction. The use of a Chinese painting for design outline.
Aesthetic discourse outside the paradigm	None
Social values	Low
Discourse of Amenity	Making use of the natural resource for recreation (Provision of facilities)
Discourse of Consultation and Participation	None
Discourse of Social Change	None
Social discourse outside the paradigm	Provision of facility Introducing new activity
Ecological values	Low
Discourse of Harmonisation	To use the land according to the site characteristics The protection for the old Subcostate crape myrtle
Discourse of Sustainability	None
Discourse of Health / Integrity	None
Ecological discourse outside the paradigm	None
Other values	None

Project 3: Kuan-Shan Environmental-Conservation and Water-Friendly Park

A. Design Concept:

1. To create an image for Kuan-Shan as a water-friendly leisure town.
   By cooperating with the tourist recreation developments of the east regions, it is believed that the achievements of the environmental greening and embellishment of Hsin-Wu-Lu Stream shore bestow on Kuan-Shan the potential to become a key tourist focus of the region. It is also hoped that the propagation of varied cultural and leisure activities will help in inviting tourists to stay longer in the area. Under the premises of a strict pollution control and the emphasis of conservation, the development will be

further extended to provide facilities including board and lodging so as to make the town a regional tourist attraction. The result of the above-mentioned actions is hoped to achieve an overall development of the town.

2. To propose a strategy for substantial improvements according to the major landmarks and key constructions of the town.
   The environmental greening and embellishment of Hsin-Wu-Lu Stream shore results in an achievement on the enhancement of the overall environmental quality of Kuan-Shan town, which helps to make Kuan-Shan a landscaped leisure town. Consequently, the residents of the town will be motivated to take parts in the work of environmental conservation. This also inspires a caring and protecting attitude among the residents toward their neighbourhoods to help in launching the construction works.

3. To frame the local character of Kuan-Shan town.
   The environmental greening of Hsin-W-Lu Stream shore also responds to the cultural development of Kuan-Shan town. The way to re-frame the aesthetic quality of the particular stream scenery and local character of the town for the vision of a landscape leisure town is to accelerate the planning and construction of facilities along the stream shore water-friendly park.

4. To build a model of an ecological tourist town on the basis of environmental conservation.
   The environmental conservation of the Hsin-Wu-Lu Stream shore is based on the concern of preserving its natural quality. It is suggested that by the principles of sustainability, a good quality of living environment will be preserved for the future generation. People will then honour the achievement of their home town development, and therefore create a landscape leisure town with aesthetic quality as a demonstrative model of the nation.

5. To instil the town residents' environmental consciousness by introducing public participation and holding public forum.
   Introducing public participation and holding public forum are used as a means to instil the town residents' consciousness for environmental conservation so as to establish a model town of ecological tourism. In order to set up the principles of high-standard preservation and sustainability, the method of public participation, such as recruiting voluntary workers, is adopted to form a functional environment suitable for local people to use and thus to achieve an overall enhancement of the environmental quality.

B. Classification of the design ideas

Value Discourse	**Design Concept and Evaluation Score**
Aesthetic values	Medium
Discourse of Conservation	Environmental greening The riverside aesthetic quality
Discourse of Improvement	Environmental greening and embellishment
Discourse of Accommodation	None
Discourse of Artistic Expression	None
Aesthetic discourse outside the paradigm	None
Social values	High

Discourse of Amenity	To develop the town as a tourist focus To improve the overall environmental quality
Discourse of Consultation and Participation	To adopt the method of public participation To let the resident involve in their town development
Discourse of Social Change	None
Social discourse outside the paradigm	None
Ecological values	High
Discourse of Harmonisation	To extend the development under the premise of pollution control and conservation
Discourse of Sustainability	To introduce the principle of sustainability
Discourse of Health / Integrity	None
Ecological discourse outside the paradigm	None
Other values	None

Project 4: The Second Car Park Design of Wu-Lao-Keng Scenic Camp Site

A. Design Concept:

According to the planning demarcation, the 'Wu-Lao-Keng Scenic District' belongs to the 'non-urban planning area' and is itself a place for experience of wild nature. Therefore, the emphasis of planning and design in the project is to balance the effects resulting from the natural factors and human impacts.

1. The concept of carrying capacity.
   To guarantee the recreational quality, parking spaces are minimised to control the amount of tourists. In other words, this also ensures that not all of the site will foolishly be turned into car parks. Thus, there is a deep concern of the request for an appropriate density [level of usage] in terms of the man and environment relationship. Because it is acknowledged that the concept of carrying capacity is greatly influential in ecological education.

2. The tree-shaded car park as a harmonious component in the environment.
   The major concern of the car park design is the continuity of space and amenity that the tourists experience when they walk from the car park to the camp site and/or to the water-friendly space of the riverside. Therefore, apart from bringing in more plants for greening the car park, the changes in topography are used to achieve the effects of concealing the car park, preventing noise and the 'borrowed view' [which is about the decorative effect of the plants]. Moreover, this car park will not only satisfy the basic function of parking, but also take care of the design concerning the connection of the pedestrian path to the water channel by an approach of 'using the natural scenery'.

3. The introduction of the natural and ecological concept.
   a) The natural stream
   The drainage system is set up along both the flanks of the car park and the design concept comes from the natural form of Wu-Lao-Keng Stream. Two types of drainage, A and B, are developed as follows.
   Type A: The concept emphasises on the turbulent flow of a stream; therefore the water course is straighter with steeper banks at both sides. The laying of stones intermingles

with some natural stream rock protruding from its surface to express the relation between the power of water erosion and the resistance of the natural rock banks.
Type B: The concept is one of slow flow where the water momentum is becalmed while the river surface is widened and the riverbanks are lowered at the both sides. Yet, since the river will change its course naturally when running against hard rock, the riverbanks at different sides will present different degrees of slope; moreover, the way the rock are laid will be different.

b) The indigenous plantation plan.
Apart from keeping the original wild vegetation of the site, the indigenous species are the major plant material in design and the planting design will conform to the natural form. In addition, green plants are used as much as possible to hide the car park.

c) The innovation of the 'new grass-planting brick'.
In order to increase the green cover, the bricks that leave room for grass to grow are used as the paving material for car park. At the time of this design, the main type of such 'grass-planting brick' used in Taiwan is the 'cavity style brick'. This type of brick allows the grass to grow in each single 'cavity' [which is made at the centre of the brick] and the result was that some turf died in its isolated cavity without being able to revive again because the grass could not tap into any soil nutrition beyond its own single cavity. Hence, a new type of brick is innovated on the principle of making turf reproduce. The main concept is to reverse the idea of 'cavity style brick', and accordingly, the cavity becomes the substance of the brick and this substance is [in essence] the interval [between the concrete bricks]. Therefore, though some turfs might die, the rest of the healthy grass will still reproduce to replace the dead as there has the connection space between them.

B. Classification of the design ideas

Value Discourse	**Design Concept and Evaluation Score**
Aesthetic values	High
Discourse of Conservation	None
Discourse of Improvement	None
Discourse of Accommodation	The design of tree-shade parking lot
Discourse of Artistic Expression	The natural type drainage design
Aesthetic discourse outside the paradigm	None
Social values	Low
Discourse of Amenity	Introducing the concept of bearing capacity
Discourse of Consultation and Participation	None
Discourse of Social Change	None
Social discourse outside the paradigm	None
Ecological values	High
Discourse of Harmonisation	Introducing the concept of bearing capacity The indigenous plantation plan
Discourse of Sustainability	Introducing the new "grass-growing brick"
Discourse of Health / Integrity	None
Ecological discourse outside the paradigm	Ecological education Concern for living beings Ecological aesthetic – the drainage design
Other values	None

Project 5: Wu-Lao-Keng Scenic District

A. Design Concept:

The recreational resources of Wu-Lao-Keng could be divided into three main groupings. The planning and design concepts are presented accordingly:

1. The river area.
   Both the East-Keng Stream and West-Keng Stream at the upper U-Lao-Keng River form the setting for this scenic district. Hence, the assignment of planning and design is primarily upon the way to maintain its value and to carry on the life of the river (its water quality and ecology). Based on the concepts of preservation and continuation, a spot development model is suggested in the planning and design process as a strategy to prevent a planar extension of tourist activities. The selection of spots should respond to the area of the riverbed and accord with the proposed recreational activities. According to the experience of Yen-Seng Consultants in planning 23 scenic recreation spots along the Columbia River in America, a regulation was included in the management rules of the project to forbid barbecues along the riverside so as to minimise any water pollution. This planning was done in accordance with the instructions of the EPA (Environmental Protection Agency) of America and the Environmental Protection Bureau in Taiwan, placing great emphasis on the water quality and the river conservation scheme in river planning. Changes could be made on the figure of the present water-purification pond and the de-silting dam in order that these constructions would look as part of the river scenery. Recreational function could be added to such changes at the same time.

2. The valley plain.
   There are several broad hinterlands of the alluvial plain which offer good marginal zones for river recreational activity. The existing activities include multi-recreational activities such as camping, barbecue, strolling and admiring the views. However, most of the activities are crowded into certain parts of the riverside and the problems about safety, such as the raising of the river levels or a flash flood, become an important issue of great concern. Consequently, the valley plain area becomes an ideal place to accommodate tourists who scatter over the intensive used areas in this scenery district.

3. The mountainside.
   The mountain area within the Wu-Lao-Keng Scenic District is undulating which, in terms of recreational potential, is most suitable for mountain hiking. The initial concept suggests setting up a hiking trail of the whole area. This hiking trial also has an educational function as interpretation 'signals' [or signposts] were set up along the whole track to provide information about the natural and ecological vegetation and the changing geography and topography. In the work of planning, visual landscape analysis is explored according to the topography so as to set up landscape service points. Then, a flat area is chosen for an outdoor lecture theatre which could also be used for group performance of camping activity.

To synthesise the above-mentioned three topographical groupings, the development of this scenic district is not only to emphasise on recreation, but also to achieve the functions of ecological education and physical exercise. In other words it aims to provide a scenic park for the public to do leisure activities and get a physical-spiritual balance.

B. Classification of the design ideas

Value Discourse	**Design Concept and Evaluation Score**
Aesthetic values	Medium
Discourse of Conservation	To serve as a scenic park
Discourse of Improvement	The suggestion of changes made on the existing water-purification pond and dam
Discourse of Accommodation	None
Discourse of Artistic Expression	None
Aesthetic discourse outside the paradigm	None
Social values	High
Discourse of Amenity	The use of the valley plain
Discourse of Consultation and Participation	None
Discourse of Social Change	None
Social discourse outside the paradigm	Provision of facility Introducing new activity
Ecological values	High
Discourse of Harmonisation	The model of the spot development
Discourse of Sustainability	The preservation for the river vitality
Discourse of Health / Integrity	None
Ecological discourse outside the paradigm	Detail regulations
Other values	None

Project 6: Epoch Finance Mansion

A. Design Concept:

The dialogue of mountain-stone-tree-man:

1. The plan of the garden design layout.
   The purpose is to provide a delicate garden in an urban environment and a humanised out-door space of a modern building. The scene is made according to the four seasons of this area with different variations on the tree shapes and colours. The focal design points are as follows:
   a) To expand the verdant open space of the Jung-Hsing Garden [which is located in front of this office building, yet is separated by the main traffic road] and emphasise the visual amenity (the Jung-Hsing Garden will serve for active activities).
   b) To arrange a green belt around the building for intensifying the entire green landscape character.
   c) To emphasise the seasonal character of the area.
   d) To provide the residents of the community with an environment of psychological and physical amenity and at the same time to create unique style for the site.

2. Variety of plants chosen according to the change of the four seasons.
   a) This project uses the cajuput tree, which is a distinctive plant, to provide the most comfortable shade and space for pedestrians. At the same time, in order to achieve the

function as a landscape walkway, it cooperates with the street lighting and furniture designs to connect each space node and the building. Thus the pedestrian can wander around each facility cheerfully.

b) Different trees are planted according to each sub-divided area of the site.

c) The arrangement of varied tree types according to the change of the four seasons will strengthen the overall image of the whole area, and the blooming periods of [the selected] different plants will reflect the three seasons of spring, summer and autumn. The whole landscape is enriched accordingly.

3. An open ecological aquarium.

a) Both the flowing and the static water scenes are made in the water feature design. The design of the ichthyologic habitat is incorporated in the created water feature. Fishes can swim freely from one water feature to another, and therefore a living aqua-ecology is achieved.

b) The pond with its water circulation is designed of a sufficient depth and amount of water to ensure an environment for fish living

4. The street and landscape lighting.

The landscape lighting will try to be kept at 50-200 lux so as to provide a safe landscape in dark evening.

a) It is suggested that the pedestrian lighting facility should be arranged between the trees. The lighting facility design together with the street furniture should also be in harmony with the pattern of street paving.

b) Lighting which is able to enhance the building's character and the exterior changes will be set up. Any negative effect of strong light to the building user will be dealt with using appropriate screening. At the same time, the integration of the lighting and building elements is also under consideration.

c) To express the beauty of the building and present its rich features clearly, the combination of the outside lighting effect on the building's height and shapes will be dealt with. As to the application of material and the places where different scenes meet, an eloquent design is demanded to make a visual focus.

5. The paving plan.

The paving pattern design links the pedestrian walkway and a square, and integrates the necessary elements, such as the raised flower bed, parking facility, plant trough, and water faucet.

a) The main paving colour is light grey which can properly reflect the sun's radiance and, as the ground is not glossy, glare and slipperiness are prevented.

b) The paving material used at the main entry of the building is granite which is different from the material of street paving in terms of colour and texture so as to manifest the character of the entrance.

6. The street furniture design.

a) The water scene design:

A water feature with a waterfall is placed at the junction of the square and the pedestrian walkway to introduce a cool and pleasant feeling, and at the same time to

increase the visual interest. The effects of water flowing and its sound are enhanced at places of the square where activities happened most to create a more active atmosphere.

b) The design of bicycle and motorbike parking space:

The parking is planned to fit under the shade of large trees. Kerbstone and parking line are arranged to make the parking tidy and pleasant. In addition, to avoid disturbing the pedestrian access, no bicycle or motorbike is allowed to park at the square.

B. Classification of the design ideas

Value Discourse	**Design Concept and Evaluation Score**
Aesthetic values	High
Discourse of Conservation	None
Discourse of Improvement	The design emphases of seasonal change and other planting concerns
Discourse of Accommodation	None
Discourse of Artistic Expression	None
Aesthetic discourse outside the paradigm	Visual interest and sensate satisfaction
Social values	High
Discourse of Amenity	To provide an environment of amenity
Discourse of Consultation and Participation	None
Discourse of Social Change	None
Social discourse outside the paradigm	Provision of facilities (Detail concerns for pedestrians)
Ecological values	Medium
Discourse of Harmonisation	None
Discourse of Sustainability	The design of ichthyologic habitat for an artificial water feature on the site
Discourse of Health / Integrity	None
Ecological discourse outside the paradigm	Concern for living beings
Other values	None

Project 7: The Outdoor Garden of Pei-Tou Spring Hotel

A. Design Concept:

The main focus of the design expression is to combine the outdoor landscape design of the hotel and natural hot-spring activity. According to the design layout, the site is divided into the entrance and main courtyard landscape area, and the backyard garden.

1. The entrance and main courtyard landscape area.

a) The entrance area:

The design concept of a Japanese Garden is used here. At the right flank of the entrance, is placed a hand-washing bowl which is larger than a normal size not only to have an exaggerated effect but also to express the idea of a tranquil spirit and of welcome. To coordinate with the vehicular access, there is a central green roundabout, also holding up the hotel logo and some other landscape features. The materials used are all natural stone such as granite and pebbles. A bamboo grove at the space adjacent to the building is used as an obstructing element thus giving the effect of a natural background.

b) The main courtyard:

By using 'spring' as the theme, the courtyard design is brought out to create an exuberant atmosphere of hundreds of blooming flowers. Therefore, at the edge of a flat grass area, an undulating terrain is formed using mounds of soils. Then, by planting plants at different levels, a rich spectacle of many colourful flowers is presented. To emphasis the theme of 'spring', a sculpture is placed at the courtyard centre so that customers who are having meal in the inside restaurant are able to appreciate the beautiful scene. In terms of its function, the courtyard also serves as a place for outdoor coffee seating and can accommodate small parties. The principle of the design thus also focuses on utility as well as succinctness.

2. The backyard garden.
This garden, with different sized spaces formed by the topography and the randomly descending buildings, is divided into three parts: the small garden area, the hot-spring area and the rear slope.
a) The small garden area:
The Japanese Dry Garden design typology is used to reflect to the impression of a hot spring town that Pei-Tou district makes on people. This not only emphasises the visual aesthetics but also provides an extension of the indoor space for customers to freely wonder onto. The rooms which are adjacent to the garden are designed with a decking leading to the outdoors and thus the garden is made more approachable.
b) The hot-spring area:
The outdoor hot-spring area is designed by making use of natural hot-springs. Baths fed by this naturally heated spring water are designed in accordance with the requirements of the hotel management that the baths for female and male customers are separated. The manner of the Japanese Garden is adopted here as well and natural materials compose the main design elements. The design of pavilion and bamboo curtain also respects the need for privacy so that the provision of outdoor shower facilities meets the functional use.
c) The rear slope area:
For the steep rear slope, a step-shape retaining wall is built behind the baths and the rear of the hotel. The landscape potential and function of this area is to provide a background scenery; thus Taiwanese cherry and Japanese maple trees are used in the design to create the atmosphere of the northern countries by covering the slope with their red colourings.

B. Classification of the design ideas

Value Discourse	**Design Concept and Evaluation Score**
Aesthetic values	High
Discourse of Conservation	None
Discourse of Improvement	Creation of natural background between the buildings and at the rear slope area
Discourse of Accommodation	None
Discourse of Artistic Expression	The entrance design The main courtyard design The small garden design of the backyard garden
Aesthetic discourse outside the paradigm	None
Social values	High
Discourse of Amenity	Implication of combining design with activity

Discourse of Consultation and Participation	None
Discourse of Social Change	None
Social discourse outside the paradigm	Provision of facilities & Functional considerations
Ecological values	None
Discourse of Harmonisation	None
Discourse of Sustainability	None
Discourse of Health / Integrity	None
Ecological discourse outside the paradigm	None
Other values	None

Project 8: Pei-Tou Huai-Shih

A. Design Concept:

1. The concept

   Except for the sophisticated technical manipulation, the expressions of the space should address at a deep level why and for whom the place is made. Playfulness and creation always potentially exist within each single line and thought. Space, form, material and composition carry the yearning and hope for home. Cold and hard stone, cement and water can all be granted with spirit.

2. The gist

   Landscape design should complement the surrounding environment and combine with it as one unity. If the garden design fails to coordinate with the environment in which it is located, it will lose the meaning of existence. The landscape and garden design of the ancient China makes use of the natural scenery and aptly arranges it in the garden; therefore, ingenious thoughts and artistic conceptions are perceived all over the garden. The expression among the northern gardens is simple and sublime whereas that of the southern gardens is gorgeous and delicate. Each of them is ingenious but all are able to present their local characters.

   The project, Huai-Shih landscape, which is located beside the Kuan-Tu Plain and adjacent to the Ta-Tun Mountain, is expected to be able to represent the environmental character of the site through the garden design. Moreover, it also hopes to follow the inherited Chinese tradition of upholding and loving nature; and to realise the Confucian idea of 'all flows with the world' or the Taoist concept that 'I live in harmony with the world; and all and I are in unity'.

B. Classification of the design ideas

Value Discourse	**Design Concept and Evaluation Score**
Aesthetic values	High
Discourse of Conservation	None
Discourse of Improvement	None
Discourse of Accommodation	To harmonise with the surrounding environment
Discourse of Artistic Expression	The emphasise on a sense of home The idea for making the image of harmonisation
Aesthetic discourse outside the paradigm	None
Social values	Low
Discourse of Amenity	Design for the residents a place of the yearning and hope for home.

Discourse of Consultation and Participation	None
Discourse of Social Change	None
Social discourse outside the paradigm	None
Ecological values	None
Discourse of Harmonisation	None
Discourse of Sustainability	None
Discourse of Health / Integrity	None
Ecological discourse outside the paradigm	None
Other values	None

Project 9: Palm Spring

A. Design Concept:

A landscape planning respecting to the nature

This is the narration of the feelings of an explorer coming from the tropical rain forest: "The trees are so tall that they are reaching the sky. The sunshine goes through the gaps between leaves to fall as golden drops. A meandering path wanders through the woods. To stay within it, one will be aware of the sounds of frogs and insects in the cool, and the fragrance of vanilla."

This is a description of the environment imprinting itself on the mind; and it is the primary design idea of the 'Palm Spring', which emerges from a deep impression of the nature. What is more curious is that at the end of the meandering path, what will be the view to greet the eyes? At the Palm Spring, the landscape image of the entrance gate is an epitome of the tropical rain forest. After going through a meandering path, which leads from shaded areas into brighter areas, the design intends to express: a presentation originated from the natural landscape; a planting plan based on the great nature, the naturally created conditions of the nature; a style thoughtfully formed from the life memories of a tree frog. At 'Palm Spring', vegetation with a tropical character frames the major landscape space. From the upper level to mid-level and ground-level planting, all present a balance in the ecology of a natural environment; all are in harmony with one another as if in a self-seeded ecosystem. Here, one can profoundly experience exuberant trees offering shade, dramatic changes over the four seasons and a landscaped space of fragrant flowers and singing birds.

B. Classification of the design ideas

Value Discourse	**Design Concept and Evaluation Score**
Aesthetic values	High
Discourse of Conservation	The admiration of a tropical rain forest
Discourse of Improvement	None
Discourse of Accommodation	None
Discourse of Artistic Expression	To symbolise an epitome of a tropical rain forest
Aesthetic discourse outside the paradigm	None
Social values	None
Discourse of Amenity	None
Discourse of Consultation and Participation	None
Discourse of Social Change	None
Social discourse outside the paradigm	None

Ecological values	High
Discourse of Harmonisation	None
Discourse of Sustainability	None
Discourse of Health / Integrity	None
Ecological discourse outside the paradigm	Ecological planting design
Other values	None

Project 10: Roof Garden of Han-Min Technology Office Building

A. Design Concept:

Balconies at the third and the fifth floor coexist with one beside a restaurant and another beside an office. In response, the main principle is to meet the user demand and also to coordinate with the interior style and micro climate. In addition, cares must be taken to create a beautiful landscape which would be less than the loading capacity of the existing construction.

The project succeeds not merely in tackling the limitations of the building's loading capacity but in satisfying the main character of the project, which is to create a pleasing atmosphere for the whole area. The design theme of the project is the moderate grass slope and a wooden deck. These designs intend to break down the cold and cheerless feeling offered by the previously monolithic office building. At the remaining corners, a bright and lively place is created and the whole image is transmitted to the indoor users through the glass wall at one side of the site so as to attract them to come in and stay. The clusters of flowers and plants alternate according to the four seasons to enrich the garden with seasonal change. The decorated flower fence in front of the wall softens the cold and cheerless wall surface. The tendril vine creeping over the fence, together with the indistinct partial shade given by the wooden frames will tacitly strengthen the depth of the space. To the designer, the purpose of this project is not only to provide a pleasant space of the office building, but mostly to create a place amenable to emotional relaxation. If the users experience pleasure before they leave, the purpose of the design is fulfilled.

B. Classification of the design ideas

Value Discourse	**Design Concept and Evaluation Score**
Aesthetic values	High
Discourse of Conservation	None
Discourse of Improvement	The idea for making sloped lawn and wooden deck
Discourse of Accommodation	None
Discourse of Artistic Expression	None
Aesthetic discourse outside the paradigm	None
Social values	High
Discourse of Amenity	The provision of a place for release and enjoyment
Discourse of Consultation and Participation	None
Discourse of Social Change	None
Social discourse outside the paradigm	None
Ecological values	None
Discourse of Harmonisation	None
Discourse of Sustainability	None
Discourse of Health / Integrity	None
Ecological discourse outside the paradigm	None
Other values	Technical requirement for the loading capacity

Project 11: Pedestrian and Vehicle Traffic-Separation System for Yang-Chin Road of Yang-Ming-San National Park

A. Design Concept:

Yang-Ming-San Park is adjacent to the urban area of the Great Taipei City. The walker's track within the park area is under the renovation and construction remit of the Department of Economic Development of Taipei city government and the Tourism Bureau, Ministry of Transportation and Constructions. The track, which reaches each recreational spot in the area, is the foundation of today's fine network of tracks. Based upon the principle of resource conservation, it is suggested that the type of transportation in the central area of a national park should be based on a walker's track. It is combined with the recreational resource of the area and other public transportation systems to provide varied opportunities for taking part in recreation. It could also help to minimise the disturbance produced by human activities and which harms the environmental resource of the nature and the aesthetic quality of the area.

The planned area which includes a 20-metre zone at each side of the road, measured from the centreline, starts from the front park of Yang-Chin public road to the Chung-Hu fortifications, giving a total length of 6300 metres.

Yang-Chin public road is the main artery of traffic and hiking track within the area of Yang-Ming-San National Park. It is confronted with an increasing daily traffic flow and in order to ensure visitor safety and to moderate the pressure of hiking activity, the principle emphases on both conservation and recreation are detailed as:

1. To set up a traffic separation system of pedestrian paths and vehicle roads from the front mountain Yang-Chin public road to Chung-Hu so as to provide visitors with a safe and convenient path;
2. To link with the present road system and hiking track as a complete system;
3. To add an interesting and educational character to the recreational activity of the area and to provide high quality recreational opportunity and experience;
4. To provide the type of [recreational] use that has minimal impact on resources, uses the least construction and has minimal maintenance requirements;
5. To establish the principles of management and maintenance of the planned track as the reference for future maintaining work.

B. Classification of the design ideas

Value Discourse	**Design Concept and Evaluation Score**
Aesthetic values	Medium
Discourse of Conservation	Minimising the disturbance on the aesthetic quality
Discourse of Improvement	None
Discourse of Accommodation	None
Discourse of Artistic Expression	None
Aesthetic discourse outside the paradigm	None
Social values	High
Discourse of Amenity	Concerns of safety and amenity for use Concerns of high quality recreational use
Discourse of Consultation and Participation	None

Discourse of Social Change	None
Social discourse outside the paradigm	Quality of use
Ecological values	High
Discourse of Harmonisation	Concerns of human impact on natural resource
Discourse of Sustainability	None
Discourse of Health / Integrity	None
Ecological discourse outside the paradigm	None
Other values	None

Project 12: Tung-San Riverside Dyke Construction

A. Design Concept:

The dyke is regarded as the connecting point of the river and the surrounding environment rather than a dividing point. As such, the purpose of the project is to create a natural and rich landscape at both riverbanks. Based on this aim, it is hoped to bring in a new vitality at the original landscape of I-Lan for new local scenery.

1. A harmonised relation to the forest park:
   a) The unification of image using the character of wood (natural logs);
   b) The coordination of sight lines (the selection of resting spots);
   c) Nature observation (observing wetland wildlife).
2. A humanised path upon the dyke top:
   a) Softening the lines;
   b) Suitable arrangement of resting spots and seating chairs;
   c) Maintaining good connection to external arterial routes.
3. A beautified rural village:
   a) Using the stone laying method of I-Lan stone at the altered waterway is more natural and has an ecological function;
   b) The main purpose of using stone laying as retaining wall at the edges of paddy fields is to moderate the outside slope of the dyke and to increase green space.
4. To create the water-friendly character:
   a) To create the access to the riverside;
   b) To provide distinctive water recreational facilities;
   c) To shape the topography in harmony with the riverside.

5. A creation of a natural-style protecting bank:
   It is hoped to create a protecting bank which is able to resist the impact from the waves produced by the motor boats and at the same time to preserve the natural landscape, such that human recreation can coexist in harmony with the abundant riverside wildlife.

B. Classification of the design ideas

Value Discourse	**Design Concept and Evaluation Score**
Aesthetic values	High
Discourse of Conservation	The design pursuit of a natural style
Discourse of Improvement	To add in new vitality and to create a new local scenery
Discourse of Accommodation	To regard the dike as a connection between the river and its surrounding environment

	To seek a harmonious relation to the forest park
Discourse of Artistic Expression	None
Aesthetic discourse outside the paradigm	None
Social values	High
Discourse of Amenity	Implication of the humanised dyke path
Discourse of Consultation and Participation	None
Discourse of Social Change	None
Social discourse outside the paradigm	Provision of facilities & Functional considerations
Ecological values	Medium
Discourse of Harmonisation	Regarding the dike as a connecting point; Concern of the coexistence of human recreation and riverside wildlife
Discourse of Sustainability	None
Discourse of Health / Integrity	None
Ecological discourse outside the paradigm	None
Other values	None

Project 13: Fu-Ying Green Veranda

A. Design Concept:

The goals and contents of environmental transformation were set up through several communications and consultations with the local authority and the residents of this neighbourhood. These are:

1. To reconstruct the resident space:
   This includes two parts. One is the pedestrian space, which is the walk-path space provided to link up the corridors at the both sides of the building block. The second is a small community square located at the broader area to the north of the site. Here several pedestrian accesses cross and pedestrians need to traverse this area on the way to the overpass; thus it offers a place of rest for the residents and students. It is also a place used for community activities.

2. To reinforce a community image:
   A continuous green belt of plants raised 80 centimetres above the road level is used to demarcate the space of activity and the first level. Then, by planting the flame goldrain tree, a green street image of the area is strengthened and the previously uncoordinated spatial structure of the street is defined. Finally, at the inner side of the fringe space which is both the flanks of the pedestrian space, a row of cement pillars at intervals of 4.5 metres extends the rhythm of the columns along the provincial road to strengthen the spatial segregation of the pedestrians and drivers. The pedestrian space, 2.7 metres in width and height, is demarcated by a row of pillars with a wooden trellis above that forms a strong one-point perspective arcade. This improves the pedestrian space in a chaotic surrounding environment and not only prevents people from feeling nervous and insecure but also to helps the pedestrians feel respected as they ought to.
   The landmark shelter is set up according to the three following principles on the small community square at the broader area of the north site:
   a) With a clear and simple figure, it makes a distinct contrast to the chaotic landscape of the surroundings.
   b) The side facing the provincial road should offer enough 'substance' both to

strengthen the visual impression while passing along the road at high speed and to provide visual recognition while approaching it from a hundred metres distance off the centre axis of the Fu-Jen University.

c) The shelter as a whole is itself a sculpture, yet its varied facets reflect different spatial characters and scales.

Apart from the landmark shelter, the stone carved 'Fu-Ying Green Veranda – The Arcade' with a height of 2.7 metres is placed at one side of the junction and becomes a visual focus at the busy traffic node and another spatial landmark of Fu-Ying community as well.

3. The Environmental greening:

Besides the above-mentioned green belt along the both flanks of the veranda with its composite plantation of seasonal flowers, Sprengeri Fern, shrubs (Hawaiian elf and fragrant pittosporum) and a row planting of the flame goldrain tree, vine vegetations are planted at the both sides of the arcade pillar row. One of the vines is the evergreen plant, climbing fig, which creeps along the low walls to strengthen the horizontal green belt. Other flowering vines include orange trumpet vine and Brazil bougainvillea covering upon the wooden framework of the arcade to strengthen the image of the 'Green Veranda'.

B. Classification of the design ideas

Value Discourse	**Design Concept and Evaluation Score**
Aesthetic values	High
Discourse of Conservation	None
Discourse of Improvement	To improve and enhance the visual impression The environmental greening
Discourse of Accommodation	None
Discourse of Artistic Expression	To create the community image
Aesthetic discourse outside the paradigm	None
Social values	High
Discourse of Amenity	The improvement of pedestrian space
Discourse of Consultation and Participation	To consult with the community residents To reconstruct the resident space
Discourse of Social Change	None
Social discourse outside the paradigm	Concerns about use – the resident space
Ecological values	None
Discourse of Harmonisation	None
Discourse of Sustainability	None
Discourse of Health / Integrity	None
Ecological discourse outside the paradigm	None
Other values	None

Project 14: The Outdoor Theatre of Shih-Hsin University

A. Design Concept:

1. The idea of space connection:

As the site is located among the library, the information building, and the She-Wo mansion, it has caused a lot of inconvenience for the students and staff to cross through

and reach the other side before the design is complete. It was realised that if the site is used as the connection to link up these spaces, it becomes able to considerably strengthen the convenience of circulation.

2. The provision of space for rest:
   Within the campus of the Shih-Hsin University, the space is divided by each school such that the whole place lacks a sufficient shade for rest. Therefore, the tall trees of the site were retained to meet this requirement.

3. The design of an outdoor theatre:
   The Shih-Hsin University is a school for news and mass media professionals. Thus, it was suggested that, by making the outdoor rest place with a multi-functional use as an outdoor theatre for performance, not only would make the site provide a greater benefit, it would also let the outdoor space be endowed with more meanings.

4. A construction for water and soil maintenance:
   Problems of soil erosion and water flow in the car park are caused during the rain season. Thus, the construction of retaining walls were built to coordinate with the plantation and to conduct the flow and allay flooding at each level, and then along the drainage to discharge the rain into the ditch.

B. Classification of the design ideas

Value Discourse	**Design Concept and Evaluation Score**
Aesthetic values	None
Discourse of Conservation	None
Discourse of Improvement	None
Discourse of Accommodation	None
Discourse of Artistic Expression	None
Aesthetic discourse outside the paradigm	None
Social values	High
Discourse of Amenity	The concern of circulation convenience To provide a place for rest
Discourse of Consultation and Participation	None
Discourse of Social Change	None
Social discourse outside the paradigm	Concern for use
Ecological values	Low
Discourse of Harmonisation	None
Discourse of Sustainability	None
Discourse of Health / Integrity	None
Ecological discourse outside the paradigm	Concern for constructional detail
Other values	None

Project 15: Wei-Ke Nursery School

A. Design Concept:
The disposition of space achieves a flexible spatial quality of safety, kindness, vigour and interest. The whole area adopts a centripetal theme to increase the interaction between each facility and to create the interrelated added-effect of the atmosphere of a bustling

festival. The constructions of the whole area have clear gradations as a layout of concentric circles. The centre is a fountain square defined by the level of special paving and it is surrounded by playing facilities such as a mini rocking-horse and see-saw etc. The next outside circle is a path to connect the accesses and also to fulfil the activity requirements of chasing and riding tricycles. The next outer circle is a more active area with a children's slide (with a stepped watching terrace), a paddling-pool (with an outdoor theatre) and a sand pit (with three sets of sand playing facilities). The low walls defining the boundary of this circle could be used as seats for teachers and children to rest. The outermost circle is offered for the most active activities with the sloping lawn, a swing, a balancing log and the round entry square.

Such a disposition of the concentric circles divides different activity types and reduces the conflicts. Another benefit is that it is so clear at a glance for teachers to control conveniently. For the ordinary use, the teachers can divide the children into small groups to use the facilities of each area in the garden; and for a particular occasion, the whole area could be used as a complete square. Thus, the use for big events such as graduation, celebration and parent or guardian meetings is more flexible. Another flexible use strategy includes the use of the circular fountain square as a stage and the small padding pool as an outdoor theatre when the water is discharged. These will increase the rate of use of playing facilities.

Furthermore, in the light of the site conditions, it was decided to retain the existing big trees, infill the low and waterlogged ground, and improve the entire drainage system. As the construction period was not long, it was necessary to start the implementation immediately after completing the initial design. Hence, many site conditions were realised only after implementation and many details are still gradually being developed and addressed.

B. Classification of the design ideas

Value Discourse	**Design Concept and Evaluation Score**
Aesthetic values	None
Discourse of Conservation	None
Discourse of Improvement	None
Discourse of Accommodation	None
Discourse of Artistic Expression	None
Aesthetic discourse outside the paradigm	None
Social values	High
Discourse of Amenity	Concerns of spatial quality
Discourse of Consultation and Participation	None
Discourse of Social Change	None
Social discourse outside the paradigm	Concern for use
Ecological values	None
Discourse of Harmonisation	None
Discourse of Sustainability	None
Discourse of Health / Integrity	None
Ecological discourse outside the paradigm	None
Other values	None